

GRAIN & FEED JOURNALS

CONSOLIDATED

A Merger of Grain Dealers Journal, American Elevator & Grain Trade, Grain World and Price Current-Grain Reporter

In This Number

Grain Dust Explodes Again

Some Advantages of Selecting Better Seed Grain
Growers Have Profited by Holding

Commission Merchants Denied Handling of CCC
Corn

Insect Damage to Soybeans

Buffalo Requests Lower Wheat Rate to Seaboard
Southwest Can Hold Its Wheat Crop

Redemption of Loan Wheat

USDA Program to Increase Supply of Food

Commission Merchants Would Handle Govern-
ment Grain

Futures Trading in Grain Increases 56%

Certificate of Necessity

Exemption Under Wage and Hour Law

Development of Federal Regulation of Futures
Trading

Loss in Drying Corn

Change in Wage and Hour Legislation

A Plan for Distribution of AAA Legume Seed

Midland Red Clover

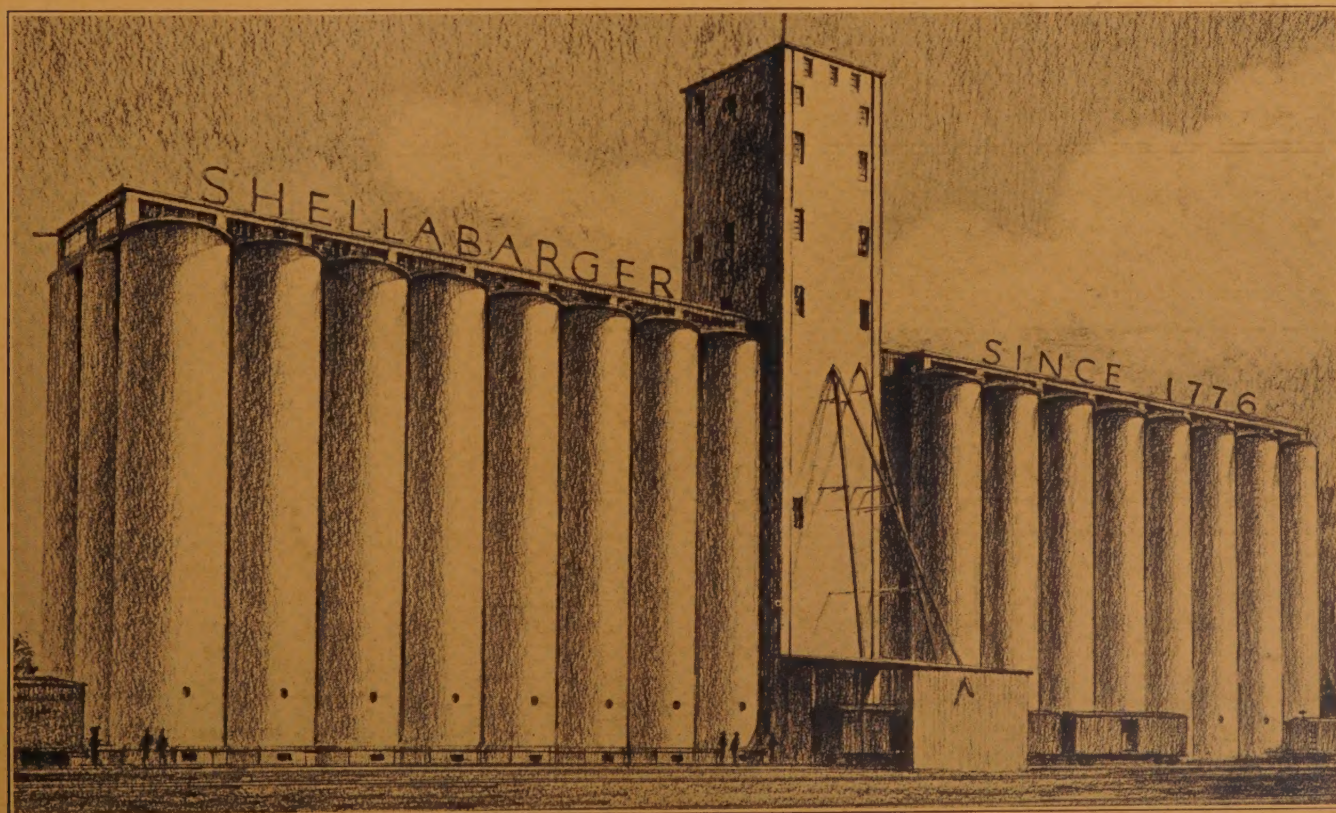
Vanguard Oats Superior

Hybrid Seed Corn

Problems in Soybean Processing

Protein Levels for Young Turkeys

Vitamin B Complex in Feeding Poultry



Shellabarger Elevator Co., Salina, Kans., Doubles Its Storage Capacity
(For description see page 301)

Directory of the Grain Trade

In Organized Markets Only Members of the Local Grain Exchange Will Be Listed

HAVING YOUR name in this directory will introduce you to many old and new firms during the year, whom you do not know or could not meet in any other way. Many new concerns are looking for connections, seeking an outlet or an inlet, possibly in your territory. It is certain that they turn to this recognized Directory, and act upon the suggestions it gives them. The cost is only \$10 per year.

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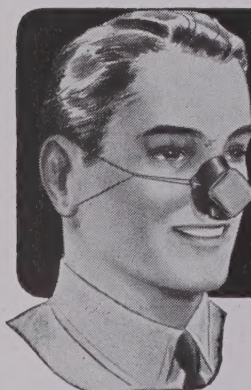
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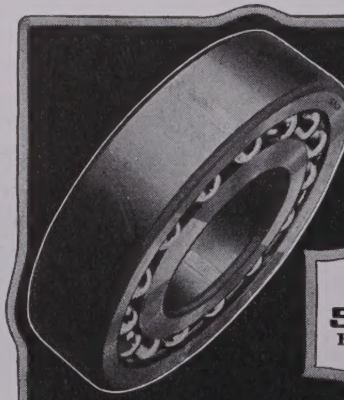
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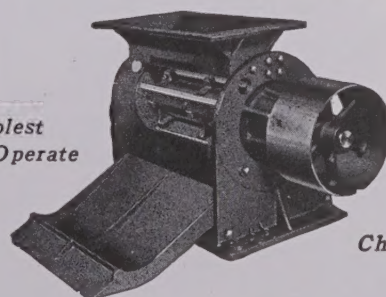
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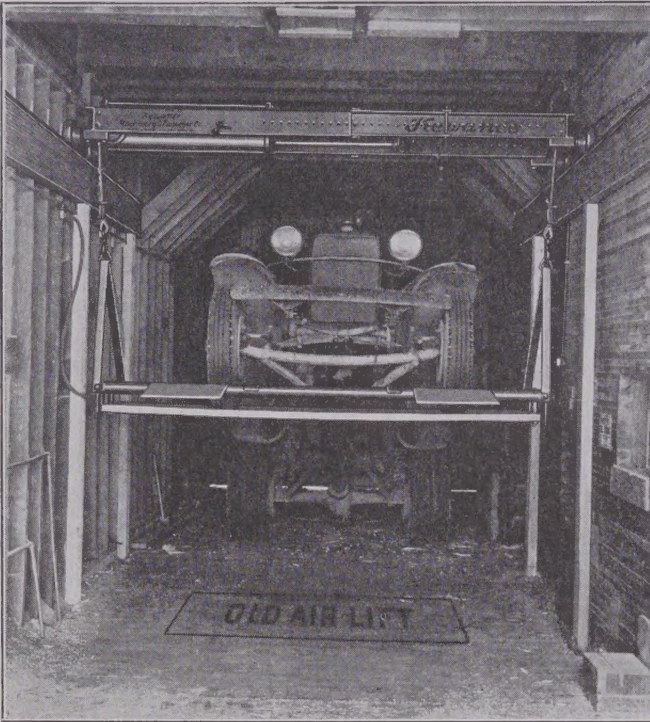
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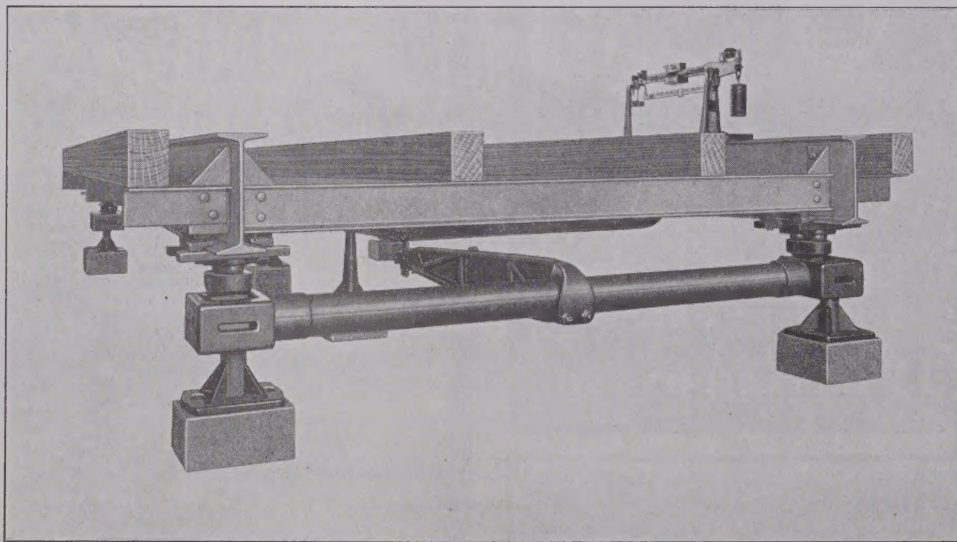
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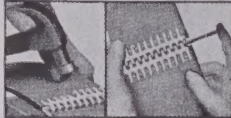
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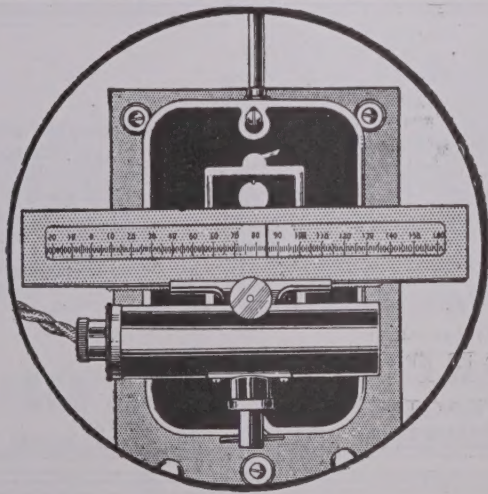
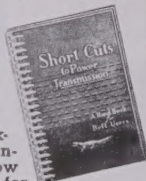
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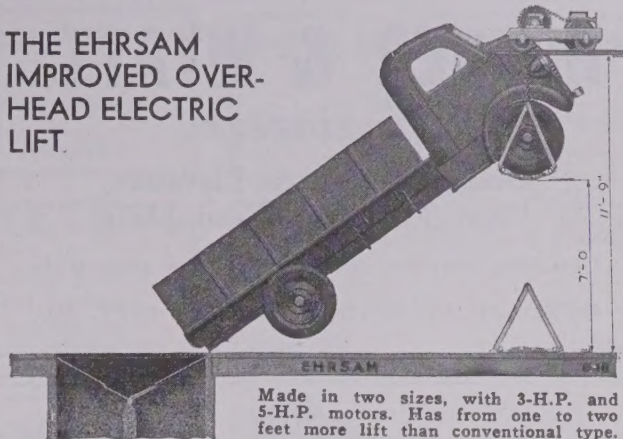
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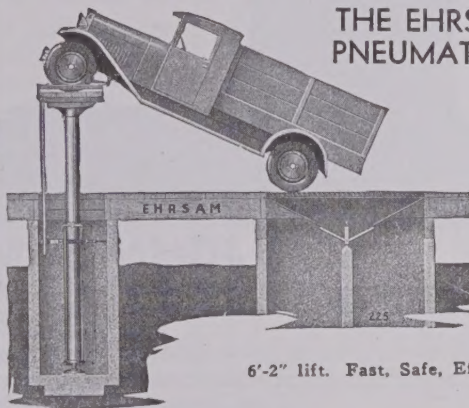
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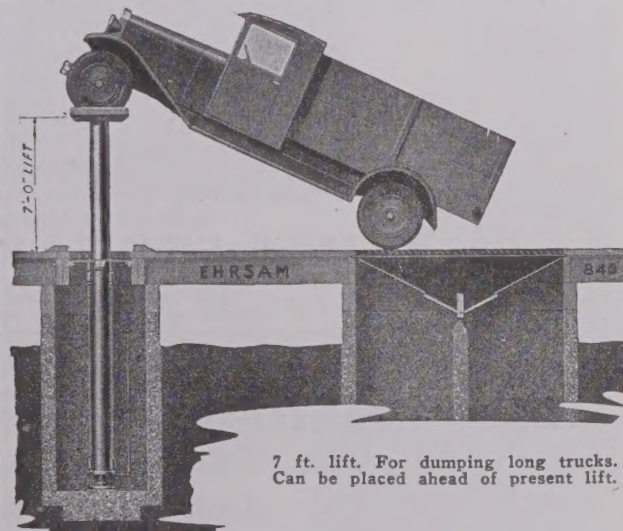
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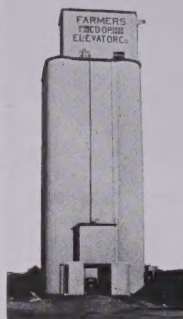
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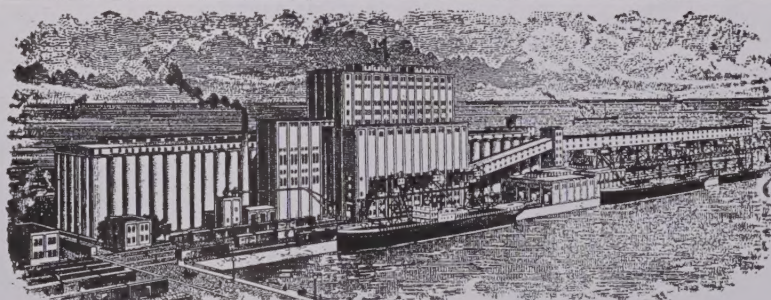
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FOR GRAIN ELEVATORS



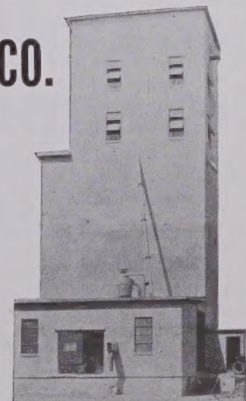
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2337 North 31st Street MILWAUKEE, WIS.

A. CLEMANS & SONS CO.

LONDON, OHIO

Engineers—Contractors

Fireproof — Modern
Grain Elevators



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"It's All in the Cup"—No expensive changes in
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Designed for close spacing—90% carrying capacity—perfect discharge at greater speed for
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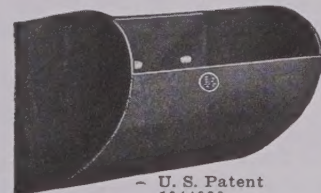
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1944932

Wanted and For Sale

The rate for advertisements in this department is 25 cents per type line each insertion

ELEVATORS FOR SALE

FOR SALE—Three elevators in heart of grain and bean section of Michigan. Address 86G2, Grain & Feed Journals, Chicago, Ill.

ILLINOIS elevator for sale: Located about 30 miles N.W. of Decatur. Doing good business. Address 86D3, Grain & Feed Journals, Chicago.

IOWA elevator for sale; 20,000 bus. cribbed; also residence; located in one of the best grain points in state; dissolving partnership. Write McNally Grain Co., Ireton, Iowa.

OHIO—Elevator in Darke County for sale; feed, coal, seed, hardware business; good grain, hog, poultry and dairy section. Dwelling in connection. Address 86C5, Grain & Feed Journals, Chicago, Ill.

INDIANA Elevator, feed, coal, seed, fertilizer business; good grain, stock, dairy, poultry section, cap. 25,000 bus., good repair and paying. Will sell outright or easy terms. C. C. Harmon Co., Board of Trade, Indianapolis, Ind. Phone Lincoln 3722.

FOR SALE—10,000 bu. cribbed elevator and equipment; coal sheds, office building and dwelling, cob and fuel house, lumber shed. Bradish, Boone County, Nebraska. For further information write to Omaha Bank for Cooperatives, Farm Credit Bldg., Omaha, Nebr.

FOR SALE: Best bargain in the country. Small fully equipped elevator in Central Ohio. Both elevator and feed mill fully equipped. An ideal plant for the person wanting a sure money maker for the rest of his life. Address 86F4, Grain & Feed Journals, Chicago, Ill.

CENTRAL OHIO—Small completely equipped elevator for sale, with feed mill; both elevator and feed mill equipped with new, most modern machinery. On Trunk Line Railroad. Very low power costs. Located in rich farm community. This plant will easily pay for itself within three years. Located in small village, within five miles of a thriving university town. Just the place for a man who wants to give his children a college education at low cost. Good banking facilities. Write 86F5, Grain & Feed Journals, Chicago, Ill.

ELEVATORS FOR SALE

TEXAS—20,000 bus. stone elevator for sale; 20 ton Howe Scale; corn sheller, 8½ acres land; no incumbrance. Good wheat, oat and corn territory. An ideal station for a young hustler. Owner's age reason for selling. C. D. Martin, Box 2, Morgan, Texas.

FOR SALE—In good midwest community, this established Mill and Elevator with 27,000 bu. capacity. A good feed business, good coal business and two 60 bbl. mill units. Completely equipped except office furniture and trucks. All machinery in excellent condition—plant operating full time since 1886. Must go at a sacrifice price to satisfy Building and Loan Association as owners. Responsible buyer may purchase on contract, 25% cash, balance in rent-like payments at 6% Direct Reduction interest, or better offer for cash. Write Palestine Building and Loan Association, Palestine, Illinois. Please do not wire or phone.

FOR SALE OR LEASE

OHIO—Modern feed, coal and elevator property for lease or sale, available to party with small capital. Nearest competition six miles. Located in good farming section North of Central Ohio. Inspection invited. Inquire The Moody & Thomas Milling Co., Shelby, Ohio.

ELEVATORS WANTED

WANT TO BUY—Grain Elevator in good grain territory; give information on plant, volume of grain in bushels, sidelines and price. Write 86E9, Grain & Feed Journals, Chicago.

FOR RENT OR LEASE

REINFORCED CONCRETE, 80,000 bus. elevator for rent. Transit east and south. Blue Grass Feed Co., Lexington, Ky.

MILL FOR SALE

FOR SALE—50 Barrel mill, good building—one good barn—one 40x24 hog house—coal bins. Located in East Central Indiana on Springfield Division of the Big Four Railroad. Can be had at a bargain. Write Don Welch, Modoc, Ind.

HELP WANTED

WANTED—Experienced mill man in country elevator. Grinding, shelling and seed cleaning machinery used. Start work at once. Address 89G8, Grain & Feed Journals, Chicago, Ill.

SITUATION WANTED

WANTED—Position mgr. farmers elev. co., S. D., Minn., or Ia. 20 yrs. experience. Address 86F1, Grain & Feed Journals, Chicago.

POSITION as manager or ass't manager wanted in good central Ill. point; 11 years experience; 31 years of age; best references. Address 86D2, Grain & Feed Journals, Chicago, Ill.

IF YOU DO NOT find the elevator you want advertised, place your wants in the "Elevators Wanted" section and you will receive full particulars regarding many desirable properties not yet advertised.

INCREASED CAPACITIES---

A complete stock of buckets, leg belts, head pulleys, motors and head drives enables us to quote you promptly and exactly on the proper equipment to increase the elevating capacity of your elevator legs to any speed you may desire, yet keep power costs low.

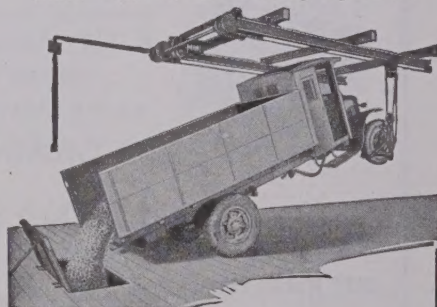
Write us about your needs.
No obligation, of course.

WHITE STAR COMPANY

WICHITA, KANSAS

McMILLIN DUMPS

For Standard Truck, Heavy Duty & Semi-Trailer, Electrically Operated



Cut shows standard truck dump

A dump that fills all requirements. Capacity from smallest wagon to largest truck or semi-trailer. Dumps from any length vehicle into one dump door. By adding extension will dump into any number of doors. Operating connections at each door. Can be installed in almost any driveway. Installation simple and very reasonable. All parts of dump in plain view above driveway floor. Vehicles can be raised to any angle for dumping. Can be stopped and started as desired. Under complete control. All-steel power unit completely assembled. Substantially constructed. No delicate parts. **SPEEDY, SAFE and SIMPLE** in operation.

Address

L. J. McMILLIN

525 Board of Trade Bldg., Indianapolis, Indiana

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GRAIN & FEED JOURNALS
CONSOLIDATED

332 So. La Salle St., Chicago

A merger of Grain Dealers Journal, American Elevator & Grain Trade, Grain World and Price Current-Grain Reporter.

Gentlemen:—In order to keep us posted regarding what is going on in the grain and feed trades outside our office, please send us the *Grain & Feed Journals* twice each month. Enclosed find Two Dollars for one year.

Name of Firm.....

Capacity of Elevator

Post Office

State

MACHINES FOR SALE

RICHARDSON SCALE; Hemlock 6x2 inch. good feed mixer. W. W. Pearson, Reynolds, Ind.

CORN CUTTER & Grader—has motor—used very little. 86F10, Grain & Feed Jnl's., Chicago.

ROSCOE AJAX oat hullers for sale at real bargain; rebuilt. Write Roskamp Huller Co., Cedar Falls, Iowa.

FOR SALE—4 Double Stands Allis Roller Mills. 10x36. Continental Grain Co., 430 S. Front St., East St. Louis, Ill.

FEED MIXER—one ton—floor level feed—has motor good as new. Write 86F11, Grain & Feed Journals, Chicago, Ill.

HAMMER MILL with 25-h.p. motor and all attachments. Priced to sell. Write 86F12, Grain & Feed Journals, Chicago, Ill.

FEED MIXER for sale, has motor, and a late machine. Need space. Will sacrifice. Write 86F13, Grain & Feed Journals, Chicago, Ill.

FOR SALE—One 7A Monitor receiving sep., ball-b., metal frame; 2, 4x17 N.&M. sifters, almost new. No. 2 Eureka Snappy Shaker, motor drive. F. W. Mann, Box 67, East St. Louis, Ill.

WHITE SALES CORPORATION

Scotts, Michigan

Full line of new mill and elevator machinery, blueprints, mill builders, millwrights

FOR SALE

Surplus Machinery Exchange: 60-HP Gruendler Hammermill; ½-ton Haynes vertical Mixer; 100-HP Diesel engine generator set; 100 bbl. flour mill & engine. Steam Boilers—steam engines, Diesel engines—gas engines. Thousands of pulleys & Gears, surplus equipment.

MACHINES FOR SALE

FOR SALE—Cracked corn separator No. 18872 Invincible, made by S. Howes Co., Silver Creek, N. Y. Write Pabst Farms, Oconomowoc, Wis.

FOR SALE—Kohler Burlap Bag one color printing press, motor driven; brass type; good condition. McDonald & Co., New Albany, Ind.

EIGHTEEN Hammer Mills—Most popular makes, completely rebuilt, fully guaranteed. Save half. Indiana Grain Machinery Co., 420 S. Meridian, Indianapolis, Ind.

FOR SALE—One 2-S-16 Gruendler Hay Mill complete with 50 HP motor; one 60 HP Miracle Ace; one 24" motor driven Attrition Mill; one No. 89 Clipper Cleaner. D. E. HUGHES COMPANY, Hopkins, Michigan.

ALL NEW AT USED PRICES—2 Hopper scales with square steel hoppers and valves, 100 bu. and 200 bu. cap.; 2 steel hopper grain bins 2,000 bu. cap. each; 2 steel bins 250 cap. each; 2 steel bins 150 bu. cap. each; 150 ft. 6" screw conveyor steel box, with lid; 60 feet, double 6" screw conveyor wood box, with lid; 1—5x4 elevator, all steel, complete, 40 foot centers; 1—large Wolfe Cyclone Dust Collector. Cliff Buzick, Bardstown, Ky.

MACHINES WANTED

CARTER DISC Separator wanted; large size, for oats and wheat only. Address 86G4, Grain & Feed Journals, Chicago, Ill.

WANTED—Late model sweet clover scarifier. Must be in good condition and priced to sell. Give full description, lowest price in first letter. Forst Seed Co., Marysville, Kansas.

SCALES FOR SALE

FOR SALE—46 Foot Howe Railroad Track Scale with registering beam. Address 86F15, Grain & Feed Journals, Chicago, Ill.

FOR SALE—30-Ton 34x9 Howe Truck Scale with registering beam, used one year only. Dillon Scale Co., Dallas, Texas.

MOTORS—GENERATORS**ELECTRICAL MACHINERY**

Large stock of motors and generators, A.C. and D.C., new and rebuilt, at attractive prices. Special bargains in hammermill motors, 25 to 100 H.P., 1200 to 3600 R.P.M. Write for stock list and prices. Expert repair service. V. M. NUSSBAUM & CO., Fort Wayne, Indiana.

MOTOR-PUMPS: Guaranteed rebuilt electric motors, pumps, etc. Largest stock in Illinois, outside of Chicago. Will take your equipment in trade; also offer emergency motor repair and rewinding service. Distributors for Wagner and Peerless motors, specially adapted for farm and grain elevator application. We offer free engineering advice on your problems. Write us without obligation. New illustrated bulletin No. 23, just off the press, will be mailed on request. Rockford Power Machinery Co., 6th Ave. and 6th St., Rockford, Ill.

SEEDS FOR SALE

SUDAN grass seed. Choicest Quality. Frank Bailey Grain Co., Fort Worth, Texas.

SAMPLE ENVELOPES

SAMPLE ENVELOPES—SPEAR SAFETY—for mailing samples of grain, feed and seed. Made of heavy kraft paper, strong and durable; size 4½x7 inches, \$2.35 per hundred, or 500, \$10.00 plus postage. Sample mailed on request. Grain & Feed Journals, 332 S. La Salle St., Chicago, Ill.



It's Nice To Be Right

but better to have proof!

Richardson Automatic Scales, in case of dispute, back up your claims with *proof*. For these scales are equal-arm balance scales, employing standard sealed tests weights—the most accurate weighers known. Richardson Automatic Grain Scales are completely automatic in operation, self-compensating for variations in specific gravity and rate of flow, positively interlocked against passage of unweighed grain, and they mechanically tabulate and print a complete record of all weighings.

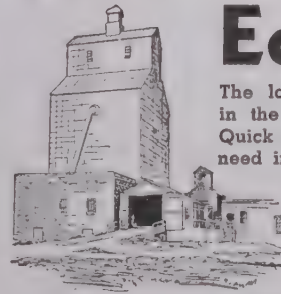
These scales are available in many capacities for either shipping or receiving use. Bulletin 1219G describes them in detail.

RICHARDSON

Chicago Minneapolis Omaha Wichita
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RICHARDSON SCALE COMPANY, CLIFTON, N. J.

Grain Elevator Equipment



The largest and most complete stock in the country. Quality merchandise. Quick shipments. No matter what you need in the way of machinery or supplies, if it is used in a grain elevator or feed plant you can get it from us promptly and at prices that will save you money.

We Manufacture:

DIRECT-CONNECTED GEARED ELEVATOR HEAD DRIVES, AERO-FLEX TELESCOPING PNEUMATIC TRUCK DUMPS, ELECTRIC OVERHEAD TRAVELING TRUCK HOISTS, COMBINATION FEEDER, SCALPER AND MAGNETIC SEPARATOR, PNEUMATIC FEED BLOWERS AND COLLECTORS, VERTI-LIFT RADIAL DISTRIBUTORS AND SPOUTING, PULLEYS, SPROCKETS, GEARS, BEARINGS, CLUTCHES, ETC.

We Distribute:

Attrition Mills—Hammer Mills—Batch Mixers—Molasses Mixers—Corn Crushers—Corn Shellers—Corn Crackers and Graders—Waukesha Power Units—Grain Cleaners—Oat Hullers—Seed Treaters—Scales—Car Pullers—Air Compressors—Motors—Manlifts—Conveyors—Belt-ing—Cups—Rope—Cable—Chain—Dockage Equipment.

GENERAL CATALOG AND PRICES ON REQUEST

R. R. Howell Co.
MINNEAPOLIS, MINNESOTA

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"ON" "TRIPPED" "OFF"

**WITH THE WESTINGHOUSE
MOTOR WATCHMAN
MANUAL MOTOR STARTER**

FOR MOTORS UP TO 7½ HP
CLASS 10-100

Easy To Install

Compact design but with ample wiring space. Concentric knock-outs on top, bottom and sides make installation easy. Top screw holes in back of cabinet are keyhole-shaped. Bottom holes oblong for quick lining up. Straight-through wiring—line to top—load at bottom.

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"De-ion" quenchers prolong contact life. Bi-metal provides unvarying accurate overload protection. Trip-free switch—cannot be held closed against overload. Quick-make, quick-break prevents "teasing". All metal parts tinned or cadmium-plated. Silver-to-silver, double-break contacts. Deep-drawn cover and contact inspection window on arc quencher make maintenance easy.

WESTINGHOUSE ELECTRIC & MFG. CO.
EAST PITTSBURGH, PA.

J-21145

"De-ion" Quenchers
Prolong contact life.

Bi-Metal Overload
Protection. Snap-
action disc. Unvarying
calibration.

Self-indicating.
Quick-make, Quick-
break Toggle action.



Flush mounting



Watertight



Explosion-resisting

Westinghouse
MOTORS AND CONTROL



GRAIN & FEED JOURNALS

CONSOLIDATED
INCORPORATED

332 S. La Salle St., Chicago, Ill., U.S.A.
Charles S. Clark, Manager

A merger of
GRAIN DEALERS JOURNAL
Established 1898

**AMERICAN ELEVATOR &
GRAIN TRADE**
Established 1882

THE GRAIN WORLD
Established 1928

PRICE CURRENT - GRAIN REPORTER
Established 1844

Published on the second and fourth Wednesdays of each month in the interests of better business methods for progressive wholesale dealers in grain, feed and field seeds. It is the champion of improved mechanical equipment for facilitating and expediting the handling, grinding and improving of grain, feeds and seeds.

SUBSCRIPTION RATES to United States, Canada and countries within the 8th Postal Zone, semi-monthly, one year, cash with order, \$2.00; single copy current issue, 25c.

To Foreign Countries, prepaid, one year, \$3.00.

THE ADVERTISING value of the Grain & Feed Journals Consolidated as a medium for reaching progressive grain, feed and field seed dealers and elevator operators is unquestioned.

Advertisements of meritorious grain elevator and feed grinding machinery and of responsible firms who seek to serve grain, feed and field seed dealers are solicited. We will not knowingly permit our pages to be used by irresponsible firms for advertising a fake or a swindle.

LETTERS on subjects of interest to those engaged in the grain, feed and field seed trades, news items, reports on crops, grain movements, new grain firms, new grain elevators, contemplated improvements, grain receipts, shipments, and cars leaking grain in transit, are always welcome. Let us hear from you.

QUERIES for grain trade information not found in the Journal are invited. The service is free.

CHICAGO, ILL., APRIL 9, 1941

THE LETTING of hundreds of contracts for new grain elevators and storage annexes proves that many far sighted grain buyers hope to be ready to receive when the new crop starts to move to market.

MIDNIGHT MARAUDERS traveling among Indiana elevators are now specializing in the theft of motors. Any dealers discovering a well stocked motor fence should communicate with the Secretary of the Indiana Grain Dealers Association.

SINCE the managers of Western Canada elevators through extra care and inspection, have been able to reduce the ratio of fire losses to income from 60 to 20 per cent, other operators who sacrifice many modern elevators each year to indifference and carelessness must recognize why fire insurance on poorly kept plants is so high. Vigilance in safeguarding elevators from fire not only saves much valuable property, but effects a material reduction in the cost of desirable insurance.

RIISING PRICES for wheat of quality is rapidly reducing CCC's stock of milling wheat in storage. Grain dealers everywhere are glad to help their farmer customers to obtain top o' the market prices, and a little bit more where possible.

TRAVELING subscription solicitors of many names, without authority from us, are collecting money from grain dealers for the Journals and sending nothing or a monthly magazine. These sharp swindlers do not hesitate to forge our name to checks made payable to our order, so the only safe course is to refuse to have any dealings with them.

GRAIN DEALERS everywhere will regret to learn that the trucker from Neosho, Mo., who drove away from a Webb, Iowa, elevator with 210 bus. of corn when the operator refused to accept a check in payment was arrested and forced to return the corn. A soft-hearted judge held the trucker guilty of larceny, but let him off with six months in jail, so he will soon be trying to buy grain without funds again.

OUR NATIONAL grain trade organizations have earned the earnest support of elevator operators everywhere by their splendid achievement in obtaining from the Wage and Hour Administration a liberalization of the "area of production" to include 10 instead of 7 employees per establishment. The Administration also can pat itself on the back for having thus enlarged the marketing service available to grain growers.

MIDDLE WESTERN grain dealers who are also engaged in the feed and farm supply business keep in mind the long feed season that gets under way in the fall when they sell baby chicks to the farm ladies, and sell good quality starting and growing mash to go with them. A good line of chicks and a good line of feeds supplied the customer at the right time, builds friendly relations that cement business for months to come. A satisfied buyer of chicks and feeds will come to the elevator for other farm supplies, including the cash for his surplus grain.

ELEVATORS wrecked in Illinois and Indiana during the last eleven years and not rebuilt number fifty-five. Evidently the discontinuance of railroads and the building of highways has helped to discourage country grain buyers who formerly obtained a fair living by providing a convenient neighborhood market for farmers who had grain to sell. The building of modern highways to good markets has encouraged farmers to haul their grain to more distant elevators, because it has long been the superstition of grain growers generally that the most distant market is always the highest. Like Thompson's colt, they never hesitate to swim across a river of clear water to drink out of a muddy pool.

NOT SATISFIED with the staggering surplus of corn which has been built up with C.C.C. loans to become both a ceiling and a bottom on the commercial movement of corn, and a worry to both government and dealers, the U.S.D.A. now places a "minimum" price on hogs of 9c a pound at Chicago, and expects to encourage production of hogs to consume the surplus of corn. There has been a little export movement of hogs to give them encouragement, but hardly enough to justify "government meddling." Hog farmers fear the "minimum" may also be a "maximum" arriving just at the time when hog prices might have gone up.

THE C. I. O. is making a persistent effort to stir up labor trouble for Hoosier elevator and mill operators, but, fortunately, the Indiana Grain Dealers Assn. has found quick relief for all of the elevator operators so far attacked by the trouble breeders by organizing a Defense Com'tee of the dealers of the immediate neighborhood infested by the agitators. Dealers threatened by the business agents simply refer them to the local committee of elevator operators and, in most cases, they have proved enough tougher than the bulldozing business agents to checkmate the trouble breeders. One dealer hesitates to stand out against a foe of unknown numbers.

THE SEASON for thunder storms and fires in tall buildings is near at hand, but, fortunately for grain dealers, most elevators are now protected by standard lightning protection so that fires started by lightning will not out-number any other cause as formerly. The very fact that all fire insurance companies now grant a credit on the annual premium for the protection of grain elevators by standard lightning protection should of itself induce the installation of protecting rods and grounded iron cladding on every elevator. The credit is so liberal that the rods cost the elevator owner nothing and become a source of income after the installation is paid for by premium credits.

SOYBEANS vary so much in germination from year to year, according to the kind of weathering they suffered before harvest, and according to the kind of care they received as seed, that grain dealers can perform a useful service by offering to test the germination of soybeans growers intend to plant. An efficient germinator will not only do the job well, but will impress farmers with the grain dealer's ability to handle other tasks connected with the diversified business every elevator operator conducts today. In the absence of a germinator, a rag doll can be used in the celebrated, simple, and well-known "rag doll test." The grain dealer who tests soybean seed for germination has an extra edge over his competition in selling inoculants to the farmer for the seed.

THE RECENT advance in the market price of soya beans has knocked the Agri. Dept.'s estimate of the farmers' intention to plant into a cocked hat.

COUNTRY ELEVATOR operators who expect to empty many of the government's steel bins will find a portable loader a profitable investment. The charge allowed by the Uniform Storage Agreement is 2 cents for unloading the steel bin and one-half cent for loading into cars.

DAMAGE to winter wheat as reported in a bulletin of the secretary of the Kansas Grain Dealers Association will affect the storage situation which had promised to become acute, perhaps obviate a marketing quota referendum and provide a severe test of the soundness of federal crop insurance.

COUNTRY ELEVATOR operators who have been seeking relief from our long extended artificial depression will be pleased to know that many dealers who have sought relief in sidelines have even installed a stock of bottled Coca Cola to get some profit from the neighborhood as well as from farmer customers.

A CURB on federal bureaucrats to prevent arbitrary, autocratic and contradictory regulations, decisions and orders is just as necessary now as when the Logan-Walter bill was first introduced. By reviving this measure and passing it over the presidential veto the Congress will earn the praise of a citizenry relieved of the threat of a confounding bureaucratic tyranny.

SO MUCH more grain than usual is now stored in the grain elevators of the country it behooves operators to exercise greater vigilance in correcting the known fire hazards of their plants and to keep all fire fighting equipment in perfect working condition for quick action. Increased watchfulness may save the elevator for another year's service.

THE LATEST announcement by the A.A.A. that corn growers who planted their usual acreages, or the area which they planted before the A.A.A. programs were set up, will be denied corn benefit payments and be ineligible for a loan, should have the effect of holding down the acreage to be planted, considered by itself. On the other hand, the policy announced at the same time of raising the price paid for hogs should induce farmers to plan for an ample supply of corn for hog feed. It is to be hoped that the A.A.A. will not create a vicious circle by returning to its former program of killing off millions of little pigs, as the animals are needed to consume corn the C.C.C. has accumulated. The A.A.A.'s ridiculous program of scarcity is to be discarded for a program of plenty. What can we expect next from the inconsistent planners?

WITH nearly every grower of commercial corn devoting his acres to hybrid corn which has been pre-tested by the commercial hybrid seed corn producer for germination, grain dealers find little call for the "rag dolls" that used to adorn so many of their offices where management endeavored to help farmers check the germination of the seed corn selected for planting.

AN IOWA elevator operator who kept a duplicate of every scale ticket issued to itinerant truckers inspected a truck the tare weight of which was over 1,000 pounds on the second trip in excess of what it weighed on the first trip. Investigation by the suspicious weighman disclosed a load of rock under the old tarpaulin. As the trucker flew the county, the farmer from whom he was buying was saved the market price of 1,000 pounds of oats. Why deal with such sharpers?

Some Advantages of Selecting Better Seed Grain

One of the most encouraging activities of men engaged in the grain and milling business is the promotion of the selection and preparation of the best seed obtainable for farm patrons. The improved seed committees of Kansas and Nebraska have been leaders not only in the selection of the most desirable seed, but in conducting test plots that will convince all farmers who are not blind that results are always improved by the careful selection of varieties of small grain which are best adapted to the immediate soil and climate.

Not only are the farmers taking a more active interest in the obtaining of heavy, plump, clean seed, but are testing their seed for germination, for foreign matter, and treating it for smut and other diseases likely to reduce the yield of the coming crop. The deeper interest shown by country buyers in the selection of better seed and the obtaining of larger yields of pure varieties, the better will be the relation between the growers and buyers in country markets.

It is not difficult for the average farmer to recognize the advantage of selecting, testing and treating seed when the growing results of the choice seed casts a discouraging shadow on plants from farmers' own seed planted in an adjacent plot. The interest of growers of the community stimulated by these test plots has done more to encourage more intelligent selection, preparation, and cultivation of choice varieties of wheat than any other effort by the champions of improved grain in fifty years. The more active the grain dealers and millers who are deeply interested in the profitable marketing of better grain, the more will they and their farmer patrons profit. Mixed varieties never command a premium and seldom escape a discount.

The Commission Man Worthy of His Hire

The bald statement by the undersecretary of agriculture that the government will not use the commission merchant because the A.A.A. figures the cost of handling thru the C.C.C. as \$1.30 per car, as against \$9.11 per car thru the commission man, totally ignores the value of the grain receiver to the country shipper and back of him the grain grower.

With a car of wheat containing 1,800 bus. the total charge of the commission man averages 911 cents, about ½ cent per bushel, most of which goes for necessary clerical work, ordering to the elevator, paying freight and fees, checking freight rates, collecting claims, reviewing grades, perhaps taking an appeal, auditing the accounts, and guaranteeing payment by the buyer.

The grain receiver does not sell to the first buyer he happens to meet on the floor of 'Change. By experience and acquaintanceship he knows which of the many buyers is most likely to be interested in the sample exhibited. Knowing what the grain is worth, he will go so far as to hold it over to the following day if buyers are shy.

The greatest value of the commission man to the shippers in the country, and more particularly the farmer, is the maintenance of the open, competitive market. In such a market the buyer who would pay less than the grain is worth, simply does not get any grain. It is the buyer who offers the commission man the most that gets the car. The cumulative effect of this condition upon prices is conjectural, it must be admitted, but it can easily be as much as 10 or 15 cents per bushel.

Thus it is the farmers' friend that the A.A.A. would starve to death.

FARMERS who can not grow soybeans with as little as 13.5 per cent moisture as provided in the proposed grades for No. 1 should make their protests heard at the coming hearings in May. The proposed increase in the percentage of splits from 1 to 10 per cent in grade No. 1 is well worth the attention of processors altho it may be satisfactory to warehousemen who would like to have the beans grade out of as into their deep bins.

WHILE THE volume of old corn now in store as collateral for CCC loans is large, there has been a comparatively small volume of 1940 corn stored as collateral for CCC loans. The bugs and the rodents are revelling in the stocks of old corn, but the new corn contains so much moisture, everyone interested has hesitated to store it, and even the County committees, who are deeply interested in prolonging their employment, have hesitated to O.K. government loans on the damp grain.

Grain Dust Explodes Again

Lest we forget that grain dust is highly explosive when exposed to a spark or a flame, a Minneapolis plant was badly damaged last Friday by an explosion which blew out a wall and roof of a feed mill being operated. Enough grain handling plants are today thoroly protected against explosion by careful control of the dust to convince all of the doubting Thomases that it is practical to control dust so thoroly as to reduce the dust hazard to minimum. Elevator men of experience who have visited some of these improved plants have been unable to find enough dust lodged on convenient ledges and beams to soil a lady's handkerchief. If elevators or feed mills do not contain enough dust to create a real cloud after the first explosion, then the second, and generally the destructive explosion, does not follow. Cleanliness reduces the dust and the hazard.

Growers Have Profited by Holding

Speculating in cash grain by holding it off the market has long been discouraged and denounced by bureaucrats, who fail to recognize owners' rights to dispose of their grain as may suit their own judgment or convenience. The right of contract has long been cherished by possessors of property, but bureaucrats have delighted in denying and depriving owners who wish to speculate in the vacillations of the market. The government has seen fit to influence the market prices of grain in favor of owners because growers still hold title to unusually large stocks.

When the farmers increase their returns from grain harvested through holding they are likely to persist in contending for the right to speculate in grain as may seem best for the obtaining of larger returns from the sale of their grain. If the government ever retires from the grain business, the farmers who have profited from holding crops during recent years are very likely to continue to hold their crops for higher prices, and

they should be permitted to do so without any regulation or limitation by government supervisors.

Price Effect of Government Controls

The chief administrator of the Agricultural Adjustment Administration in his address Apr. 3 before the Farmers Grain Dealers Ass'n of Oklahoma had so many sound arguments in favor of the farm program it is regretted that he ventured on the dangerous ground of prices.

The assumption that without the farm program the farmers would be forced to take 40 cents per bushel is unwarranted. This misconception seems to be based on the premise that a large supply always means a low price. The truth is that a large supply has no effect in lowering the price unless it is pressed on the market. If the holders are unwilling to sell, as is usual in time of war, prices will rule high despite large stocks.

In the winter of 1918-1919 the visible supply of wheat in the United States was the largest on record up to that date, 136,809,000 bus. on Nov. 16. Was the price the lowest on record up to that date? By no means. Just the opposite. In fact, the price was the highest for over 50 years, \$3.50 per bushel. If the argument of the chief administrator were sound the price should have been 35 cents per bushel.

When wheat sold at \$3.50 per bushel there was no farm program, no acreage restrictions, no Commodity Exchange Administration to discourage investment in grain, no accumulation by the government of vast stores to hold as a threat. There was no government control over wheat speculation such as that which has driven the open interest on the Board of Trade to the all-time low of 42,791,000 bus. on Apr. 1.

That participation by the public in grain investment is the clue to the secret of price level is shown by the finding of a leading Chicago grain statistician, formerly in the employ of the government at Washington, that in five years of heaviest future trading, with a volume of 14,498,000,000 bus. during the year, the farm price was \$1.12 per bushel, while in the five years of lightest trading, with a volume of 6,283,000,000 the farm price was down to 75 cents, altho the crop in the five years of heaviest trading was larger, an average of 756,000,000 bus., and 719,000,000 when the price was low.

The price of soybeans for May delivery at Chicago has risen from 69 cents to \$1.18 per bushel, without any bolstering by government, while the price of wheat has advanced from 70 cents to only 93 cents with all the aids of which the chief administrator boasts. It seems that all these artificial crutches do not offset the paralyzing effect of government control.

Kansas Adopts Grain Tax Measure

The Kansas legislature has passed and the Kansas governor has signed a grain tax measure which will require the registration of each grain dealer with his county clerk, reports J. F. Moyer, sec'y Kansas Grain, Feed & Seed Dealers Ass'n, who adds:

"This law will encourage the holding, storing and processing of Kansas grain in Kansas. Each producer and dealer in grain will pay only one-half mill per bushel, or 50c per thousand bushels tax instead of the present ad valorem rate."

Society of Grain Elevator Superintendents Will Meet

Committees under the general chairmanship of Paul H. Christensen, Van Dusen Harrington Co., Minneapolis, Minn., are busy now with preparations for the twelfth annual convention of the Society of Grain Elevator Superintendents, to be held at the Radisson Hotel, Minneapolis, June 9-11. Chairmen of the committees, all members of the society's Minneapolis chapter, include: J. R. Coughlin, Brooks Elevator Co., program; J. A. Mull, F. H. Peavey & Co., and E. S. Ferguson, president of the Minneapolis Chamber of Commerce, operators; Malcolm Noxon, Ralston Purina Co., entertainment; Pat Bohan, Searle Grain Co., reception; James Auld, Belco Elevator Co., finances; F. Maynard Losie, Hallet & Carey Co., transportation; George L. Patchin, Appraisal Service Co., associates; and Vincent Shea, Van Dusen Harrington Co., publicity. Grover Meyer, of the Kansas City Power & Light Co., will perform his usual duties as head of the allied trades' party.

Work on the three-day program, which will include a number of technical discussions and a session devoted to safety work, is progressing rapidly.—Richard E. Miller, Chairman, Publicity Committee.

From Abroad

The Liverpool Cotton Exchange discontinued operation Mar. 31, the directors having stated that government control of cotton made speculation in futures virtually impossible.

Unoccupied France has agreed to send to German occupied France 1,355,000 head of livestock and large quantities of vegetables, salt, cheese and wine in return for 3,000,000 bus. of wheat, 800,000 tons of potatoes and 200,000 tons of sugar, according to cable announcements.

Threads of Gold

By Canon Farrar

Little self-denials, little honesties, little passing words of sympathy, little nameless acts of kindness, little silent victories over favorite temptation — these are the silent threads of gold which, when woven together, gleam out so brightly in the pattern of life that God approves.

Beware!

Notwithstanding we have frequently warned our readers of the sharp practices of unauthorized subscription solicitors, a number of swindlers using different names, but having no certificate of authority from us, continue to collect money for the Journals without ever being in our employ or having authority to represent us in any capacity. Calling on grain dealers, they always know that your subscription has expired and urge an immediate renewal for a long term. C. M. Balsley has forged our name to checks without authority and without sending us checks, money or order. Your bank should credit your account with all forged checks and return them to the agency presenting them for payment. Any information which will assist in stopping the swindling practices of these sharpers will be most gratefully received.

Grain & Feed Journals

CONSOLIDATED

CHARLES S. CLARK, Mgr.

Asked—Answered

[Readers desiring trade information should send query for free publication here. The experience of brother dealers is most helpful. Replies to queries are solicited.]

Certificates of Necessity?

Grain & Feed Journals: How do you go about it to get a certificate of necessity that will permit us to amortize over a period of five years the capital costs of adding to our grain storage capacity?—T. M. G. Co.

Ans.: The necessary forms and instructions as to the information to be given in the applications may be obtained from the Office of the Assistant Secretary of War (Purchase and Contract Branch), Washington, D. C., or from the Office of the Judge Advocate General of the Navy, Navy Department (Certification Unit), Washington, D. C.

Sections 23 and 124 of the Internal Revenue Code allow a deduction for income and excess profits tax purposes for amortization, over a 60 month period, with respect to any emergency facility, the construction of which was completed, or which was acquired, after June 10, 1940, upon the issue of the certificate.

Certificates must be made before beginning construction.

The certificates are made by the Advisory Commission to the Council of National Defense and by the Secretary of War or the Secretary of the Navy, as the case may be.

The details are covered in instructions to collectors of internal revenue, as published in T.D. 5016.

About 900 certificates have already been issued, mostly for munitions plants. The first certificate for wheat storage went to the Kansas Storage Co., Wichita, Kan., for \$83,000.

Exemption Under Wage and Hour Law?

Grain & Feed Journals: We operate a grain elevator here at Greenville, Miss., and most of the labor is used to shell ear corn which we receive from the area of production, and then later on we either ship out this shelled corn to destinations within the state or else we grind this corn into corn meal, all of which we sell within the state, but in manufacturing corn meal there is a by-product produced, corn-bran, and about 25% of this corn bran has been sold outside of the state.

What we would like to know is whether the sheller crew that originally shelled the corn is covered by the overtime provisions of the act.

We did not figure that the sheller crew would come under the provisions of the act as the finished product which they worked on did not cross the state line, but we have figured that the corn meal crew whenever manufacturing corn bran that ultimately moved across the state line would be covered by the act.

We have been informed that the sheller crew would come under the act due to the fact that they work on corn that eventually was ground into corn meal with the by-product of corn bran which moved across the state line. Are we correct in our assumption that the sheller crew is exempt?

We employ about thirty people in our plant. —Mississippi Valley Grain & Feed Co., Greenville, Miss.

Ans.: It is true that the sheller crew, being engaged in production for commerce, comes under the Act, as does any person in the plant, even the clerk in the office who makes out the invoice for the shipment outside the state. It makes no difference how small the percentage of time devoted to this interstate commerce.

Anyone having anything to do with the production of the corn bran that moves out of the state is covered by the Act.

The Fair Labor Standards Act chooses to make the week the unit of time and employment. An employee can be under the Act one week and not under the Act the next week. By accumulating and shipping the interstate lots all in one week the same men would be exempt during the following weeks in which they handled no interstate goods.

A certain part of the plant and a certain number of employees could be segregated to handle the interstate traffic, while all the other employees were exempt.

Change in Wage and Hour Regulation?

Grain & Feed Journals: We noticed a news article a short time ago stating that beginning April first employees of grain elevators would be exempt from the wage and hour act. Do you have anything definite on this? Not that we propose to lengthen the hours or reduce wages, but as a matter of keeping posted on the rulings.—Binding-Stevens Seed Co., Tulsa, Okla.

Ans.: Effective Apr. 1 Gen. Philip B. Fleming, administrator of the Wage and Hour Division of the U. S. Dept. of Labor, issued regulations superseding the previous regulations defining the "area of production" as applying to establishments in towns of less than 2,500 population and receiving their commodities from farms within ten miles of such establishments, and establishments employing not more than 7 employees in the exempt operations.

The National Grain Trade Council explained to the Wage and Hour Division that the limitations in the old regulations, restricting the area from which commodities were drawn to a ten-mile radius, narrowed the market outlets for many farms and restricted the area in which many operators could purchase agricultural commodities without suffering a competitive labor cost disadvantage. It was also urged that the population limitation excluded many plants in small and middle-sized towns and cities which are surrounded by producing areas. It was further argued that the limitation of seven or fewer employees in the old regulations should be changed to a limitation of ten or fewer employees.

It was pointed out repeatedly in these columns that a 10-mile radius was ridiculous, since in these days of concrete highways a grower could haul his grain crop several times that distance to reach the grain elevator of his choice. Also, the number of men working had no place in the definition of an "area of production."

The Administrator changed the number of employees from 7 to 10 and discarded the 10-mile and 2,500 population conditions, so that the new regulation, which became effective Apr. 1 reads as follows:

Sec. 536.1—"Area of Production" as Used in Sec. 7(c) of the Fair Labor Standards Act

An employer shall be regarded as engaged in the first processing of any agricultural or horticultural commodity during seasonal operations within the "area of production" within the meaning of Section 7(c):

(a) If all the commodities processed come from farms in the general vicinity of the establishment where he is employed and the number of employees there engaged in such processing does not exceed ten, or

(b) With respect to dry edible beans, if he is so engaged in an establishment which is a first concentration point for the processing of such beans into standard commercial grades for marketing in their raw or natural state. As used in this subsection (b), "first concentration point" means a place where such beans are first assembled from nearby farms for such processing but shall not include any establishment normally receiving a portion of the beans assembled from other first concentration points.

Sec. 536.2—"Area of Production" as Used in Sec. 13(a) (10) of the Fair Labor Standards Act

An individual shall be regarded as employed in the "area of production" within the meaning of Section 13(a) (10) in handling, packing, storing, ginning, compressing, pasteurizing, drying, preparing in their raw or natural state, or canning of agricultural or horticultural commodities, for market, or in making cheese or butter or other dairy products:

(a) If he performs those operations on materials all of which come from farms in the general vicinity of the establishment where he is employed and the number of employees engaged in those operations in that establishment does not exceed ten, or

(b) With respect to dry edible beans, if he is so engaged in an establishment which is a first concentration point for the processing of such beans into standard commercial

grades for marketing in their raw or natural state. As used in this subsection (b), "first concentration point" means a place where such beans are first assembled from nearby farms for such processing, but shall not include any establishment normally receiving a portion of the beans assembled from other first concentration points.

Loss in Drying Corn

Grain & Feed Journals: I would greatly appreciate it if you would give me a formula on how to estimate the number of bushels of corn in a given load after the corn has been corrected to a 15½% moisture basis.

Our corn coming from the field runs as high as 33% moisture and we dry it down to 15½%. We have had two or three tables to go by but they have not proven at all satisfactory.

We are most anxious to solve this problem because we have some farmers who are going to grow seed corn for us this year and we wish to pay them on the 15½% moisture basis. Naturally we wish this to be as accurate as possible for all parties concerned.—P.W.B.

Ans.: The problem, for example, is: What will be the shrinkage in weight on 1,000 bus. of corn if the moisture content is reduced from 33 per cent to 15½ per cent. It is solved by the rules of proportion, in which three quantities are known and one is unknown. Thus:

Dry matter before drying equals 100 minus 33 or 67 per cent.

Dry matter after drying equals 100 minus 15.5 or 84.5 per cent.

Original weight of corn equals 1,000 bus.

Therefore 84.5 : 67 :: 1,000 : final weight.

This proportion is worked out by multiplying 1,000 by 67 and dividing the product by 84.5, giving the final weight as 791.7 bus.

Several tables and formulas on moisture content and shrinkage in grain are given in the original Circular No. 32 of the Bureau of Plant Industry of the U. S. Dept. of Agriculture, Washington, D. C.

Coming Conventions

Trade conventions are always worth while, as they afford live, progressive grain dealers a chance to meet other merchants from the same occupation. You can not afford to pass up these opportunities to cultivate friendly relations and profit by the experience and study of others.

May 8. Texas Feed Manufacturers Ass'n, Lubbock, Tex.

May 9, 10. The Panhandle Grain & Feed Dealers Ass'n and the Texas Grain & Feed Dealers Ass'n, Lubbock, Tex., will hold joint meeting.

May 12, 13. Illinois Grain Dealers Ass'n, Assembly Room of the Board of Trade, Chicago, Ill.

May 14. American Corn Millers Federation, Chicago, Ill.

May 14, 15. Oklahoma Grain & Feed Dealers Ass'n, Enid, Okla.

May 16, 17. Kansas Grain, Feed & Seed Dealers Ass'n, Wichita, Kan.

May 22. Missouri Grain, Feed & Millers Ass'n, Hotel Connor, Joplin, Mo.

May 23. Oregon Feed Dealers Ass'n, Multnomah Hotel, Portland, Ore.

June 2, 3. The Nebraska Grain Dealers & Managers Ass'n, Pawnee Hotel, North Platte, Neb.

June 2, 3. The Ohio Grain, Mill & Feed Dealers Ass'n, at the Deshler-Wallick Hotel, Columbus, O.

June 9, 10, 11. Society of Grain Elevator Superintendents, Minneapolis, Minn.

June 11, 12, 13. Southern Seedsmen's Ass'n, George Washington Hotel, Jacksonville, Fla.

June 12, 13, 14. American Feed Mfrs. Ass'n, Homestead Hotel, Hot Springs, Va.

June 16, 17. Indiana Grain Dealers Ass'n, French Lick Springs Hotel, French Lick, Ind.

June 16, 17, 18. American Seed Trade Ass'n, Jefferson Hotel, St. Louis, Mo.

Commission Merchants Would Handle Government Grain

J. F. Leahy of Kansas City, Mo., pres. of the Federation of Cash Grain Commission Merchants Association, challenges the accuracy of the Commodity Credit Corporation claim to low cost of handling the movement of government grain. The Secretary of Agriculture has ruled against employment of the grain receivers to distribute government grain. Mr. Leahy says:

"THE ACTION of the Wells committee is the culmination of nearly two years of negotiations between the commission men and the government in an effort to reach an understanding as to how far governmental agencies would go in attempting to supplant by bureaus certain branches of the grain industry. The present grain marketing machinery is taken for granted by producers and by the government with little thought of consequences should these facilities not be available for the handling of the farmers' products.

"Nowhere in the world today can be found a grain-handling system that compares favorably with the one built up over a period of many years in the United States.

"Experts in other industries marvel at the efficiency, economy and dependability of our grain markets and these same experts find it difficult to understand the intricate system that always provides the producer with an open market. Recommendation that services of cash grain commission merchants not be used by Commodity Credit Corporation is based solely on an analysis that the cost thru C.C.C. for moving corn from country locations to terminal storage would be \$1.30 per car, as against \$9.11 thru commission men. We challenge the \$1.30 per car item and know it is impossible to perform the necessary details of accounting and clerical work at any such cost.

"When a car of government corn, loaded at a country station, is ready to move, a collect telegram to the C.C.C. office at Chicago asking for disposition and reply thereto would entail an expense of not less than 60c to 70c. Thus for all other work in connection with handling of the car—ordering to an elevator, paying freight and fees, checking rates and extensions, collecting claims, reviewing grades, and auditing the accounts, etc.—there would be left only 70c, and we submit that ordinarily expenditures of governmental agencies engaged temporarily in private business do not confirm this alleged low handling cost for any commodity.

"Commission men maintain a competitive market for the producer and price levels in the larger exchanges are reflected in all grain transactions, given to the smallest hamlets where grain is bought and sold. Commission men of the principal markets of the country are the personal representatives of the producer, who, because of his geographical location, cannot represent himself.

"Remove the commission man and not only is the producer deprived of his representation, but grain exchanges are threatened with disaster because in most of the large markets commission men hold one-third or more of the memberships which support these markets.

"The loan program entails additional work for commission merchants and these men have played a most important part in placing grain in position for government loan and preparing the necessary documents which are required by lending agencies.

"Without commission firms in large terminals, distribution of loan grain could not be accomplished so as to prevent congestion. Prior to the start of the loan program, ownership of a car of grain was vested in an individual. It is not unusual now for five, ten or even more producers to pool grain in one car which necessarily increases many times the costs of the commission men's operations.

The small saving which the government claims can be made by discarding the commission men and using instead government agencies, does not take into consideration the valuable services of which the producer can avail himself at any time and at no increased cost. Regardless of this, the government is willing to sacrifice the commission men and possibly the entire marketing system without offering a substitute.

"The commission man today has the unique distinction of contributing the only economy feature to a program of vast government spending and he of course is bewildered to learn that he may perhaps be forced to find another field of endeavor in order that a few paltry dollars may be saved at his expense. The producer must be represented in commodity markets, if not by the commission men, then by some other agency, and it is to be hoped that after due consideration the government will see the wisdom of permitting markets to function in normal fashion as heretofore."

Redemption of Loan Wheat

The procedure in redeeming loan wheat is described as follows by W. B. Lathrop, special representative of the C.C.C.:

A producer having a 1940 loan on wheat stored in a warehouse may, before maturity: (1) pay the lending agency or Commodity Credit Corporation, whichever holds the note, the amount of the loan plus interest and request the return of the warehouse receipt and canceled note; (2) if the note and loan documents are held by an out-of-town lending agency or by the Commodity Credit Corporation, request that they be returned to a local bank for collection; or (3) if the proceeds of the sale of the wheat are needed to pay the loan, the producer may contract for the sale of the wheat with a local elevator, terminal elevator or commission firm and authorize the purchaser to forward a sufficient amount of the proceeds to the agency holding the loan documents to pay the loan in full. The purchaser may obtain the warehouse receipts by delivering to the agency holding the note an order of release from the borrower and an amount equal to the face value of the loan plus accrued interest.

Notes which are in the possession of Commodity Credit Corporation may be returned on the request of the lending agency for whose account they are held if such request is received prior to maturity. On the written request of the pro-

Open Interest in Future Deliveries

As reported by the C.E.A. for wheat, corn, oats and rye, and by the Board of Trade Clearing House for soybeans the open interest in all futures on the Chicago Board of Trade recently has been as follows, in 1,000 bus.:

	Wheat	Corn	Oats	Rye	Soybeans
Oct. 5	57,283	19,641	10,119	14,273	3,531
Oct. 11	56,279	19,516	10,192	14,558	4,321
Oct. 19	55,539	20,287	10,392	14,562	5,273
Oct. 26	55,850	20,811	10,382	15,014	5,976
Nov. 2	54,629	22,070	10,466	15,107	6,477
Nov. 9	55,877	22,771	10,380	14,860	7,180
Nov. 16	54,534	24,088	10,560	14,794	7,150
Nov. 23	56,038	25,156	10,658	14,951	7,356
Nov. 30	55,726	24,765	10,380	14,144	6,975
Dec. 7	55,891	24,864	9,978	12,674	6,851
Dec. 14	55,477	24,910	9,982	12,105	7,042
Dec. 21	50,179	22,509	9,858	12,550	6,859
Dec. 28	50,621	22,695	9,649	12,297	6,971
Jan. 4	49,476	22,493	9,200	12,743	6,842
Jan. 11	48,528	22,639	9,075	12,761	7,374
Jan. 18	47,827	23,795	9,210	12,779	7,995
Jan. 25	48,445	23,364	9,187	13,534	8,757
Feb. 1	48,756	23,387	8,954	13,535	8,807
Feb. 8	49,308	23,384	8,705	13,451	9,269
Feb. 15	48,712	23,170	8,490	13,436	9,370
Feb. 21	47,236	23,623	8,350	13,516	9,561
Mar. 1	45,489	24,310	8,452	13,456	9,557
Mar. 8	43,552	23,906	8,491	13,411	9,593
Mar. 15	43,945	23,360	8,598	13,403	9,745
Mar. 22	44,654	23,694	9,935	13,315	9,973
Mar. 29	42,797	23,473	8,976	13,359	9,794
Apr. 1	42,791	24,072	9,029	13,455	10,414
Apr. 5	44,649	24,495	8,990	13,525	10,653

*Reported under Commodity Exchange Act, beginning Dec. 9.
†All time low.

ducer, loans which have been purchased from lending agencies or were made direct by Commodity Credit Corporation, with warehouse receipts securing same, will be transmitted to an approved bank with instructions to deliver such documents to the producer or his agent upon payment of the full amount due thereon with accrued interest. Where loan documents are sent out for collection, instructions will be given to return such paper if payment and release are not effected within five days.

Notes which have matured, together with warehouse receipts securing same, can only be returned upon receipt of the full amount due thereon with accrued interest if received in this office prior to the time the collateral wheat is pooled. A written order of the producer authorizing release of loan documents must accompany remittance if the papers are to be delivered to anyone other than the producer. Ordinarily this can be done within eight or nine days after maturity. These remittances are accepted subject to our being able to secure the notes from the custodian before the collateral wheat has been pooled.

U.S.D.A. Program to Increase Supply of Food

The Department of Agriculture has announced a food program designed to assure ample supplies for the United States, Great Britain and other nations resisting aggression.

Under the expanded program, the production of pork, dairy products, eggs and poultry will be stimulated through the support of prices over the period ending June 30, 1943. Other phases of the program include:

1. Continuation of the existing corn loan program for 1941 and 1942.
2. Continuation of the policy of making loan corn available to producers at the loan rate plus certain carrying charges.
3. Allowing producers in the commercial corn producing area to increase corn acreage up to their usual acreage. These producers would not receive corn payments.
4. No corn marketing quotas for the 1941 crop.

Assuming continuation of existing price relationships and taking seasonal price variations into account, the Department will make purchases in the open market to support long term prices (Chicago basis) at levels approximately as follows: Hogs, per cwt., \$9.00; dairy products (basis of butter per lb.), 31c; chickens, per lb., 15c; eggs, per doz., 22c.

It was pointed out that these prices would be subject to the customary commercial differentials for market grades and qualities.

The Government's purchases in the open market will be used to accumulate reserve supplies of food. These supplies can be used for transfer to the British and other countries under the provisions of the Lend-Lease Act; for release upon the market in case of unwarranted speculative price increases; to meet requests from the Red Cross for shipment to war refugee areas and for direct distribution through school lunch programs or through state welfare departments to public aid families. Arrangements are also being made for a full and complete coordination of these purchases with those being made for our armed forces.

Under the program, farmers will be urged to: (a) increase pork production by feeding hogs to heavier weights and by increasing farrowing of pigs; (b) increase dairy production by feeding cows more grain and by milking more cows; (c) encourage additional production of poultry by increasing the size of flocks.

Although producers in the commercial corn areas will not receive corn payments or be eligible for corn loans if they plant up to their usual acreage, there will be no reduction in other payments if the usual acreage of corn is not exceeded.

The Agricultural Adjustment Act of 1938 provides that the Secretary of Agriculture may

remove operation of marketing quotas in the case of national emergency, or because of a material increase in export demand.

"Obviously," Secretary of Agriculture Claude R. Wickard said, "the comparatively few producers in commercial corn areas who wish to plant up to their usual acreage of corn in order to have feed for increased dairy, poultry and livestock production will wish and should have at this time, assurances that there will be no corn marketing quotas on the 1941 crop. Because of the ample feed supplies on hand in the country, however, most producers should plant within their corn allotments.

"This is not the time to waste soil fertility, and farmers' efforts by producing without regard to actual requirements. It is only common sense to produce more of the commodities we need and to hold down on production of the commodities we don't need and aren't likely to need.

"For example, we are proceeding with plans for a marketing quota referendum on wheat May 31. The world carryover of wheat on July 1, 1941, is expected to be around the record carryover on July 1, 1940, of one billion, four hundred million bushels. The carryover in the United States is expected to be 380 million bushels, over 150 million bushels more than the average for the 10-year period 1930-1939, which in turn was higher than the previous 10-year average. For various reasons, England isn't taking much of our wheat and continental Europe is almost completely cut off as a market. For the protection of growers, we need to take steps that will reduce the production of wheat just as we need to increase the production of pork, dairy products, and some other foods."

"We have conducted intensive studies of the needs of the United States, England, and other democracies. We believe we have a sufficient supply of most agricultural commodities. Larger supplies of some pork, dairy and poultry products will be needed, however, in the United States, in the British Isles and in Europe for several years, irrespective of the duration of the war. In Europe foundation herds and flocks are being rapidly depleted. Even in normal times, many Americans need more of these protective food products. Feed supplies are abundant and farmers will only be too glad to increase their production of pork, dairy products, poultry and eggs if prices make it profitable to grow more of these foods. Consumers should realize that fair returns to farmers for food products mentioned are the best assurance not only of ample supplies, but, in the long run, of fair prices to consumers.

"This food supply program will, we feel, stimulate sufficient increases in production to insure that food supplies will be adequate for all needs here and abroad. Consequently, there should be no danger of run-away markets for any of these food products."

Futures Trading in Grain Increases 56%

Recent sharp increases in grain futures prices and volume of trading are reflected in a monthly statement from the Commodity Exchange Administration of the U. S. Department of Agri.

Trading in grain futures on the Chicago Board of Trade totaled 495,831,000 bus. in March, an increase of 56 per cent over February but a decrease of 29 per cent compared with March 1940, which does not include soybeans.

Of the total trading in grains last month, wheat accounted for 351,780,000 bus., an increase of 60 per cent compared with February; corn 55,584,000 bus., an increase of 31 per cent; oats 10,590,000 bus., an increase of 47 per cent; rye 12,207,000 bus., an increase of 95 per cent; and soybeans 65,670,000 bus., an increase of 56 per cent.

The aggregate contracts open in wheat futures on March 31 were 43,581,000 bus., a decrease of 2,107,000 during the month. In

corn open contracts were 23,934,000 bus., a decrease of 282,000; in oats, 8,994,000 bus., an increase of 539,000; in rye, 13,396,000 bus., a decrease of 50,000; and in soybeans 10,234,000 bus., an increase of 800,000.

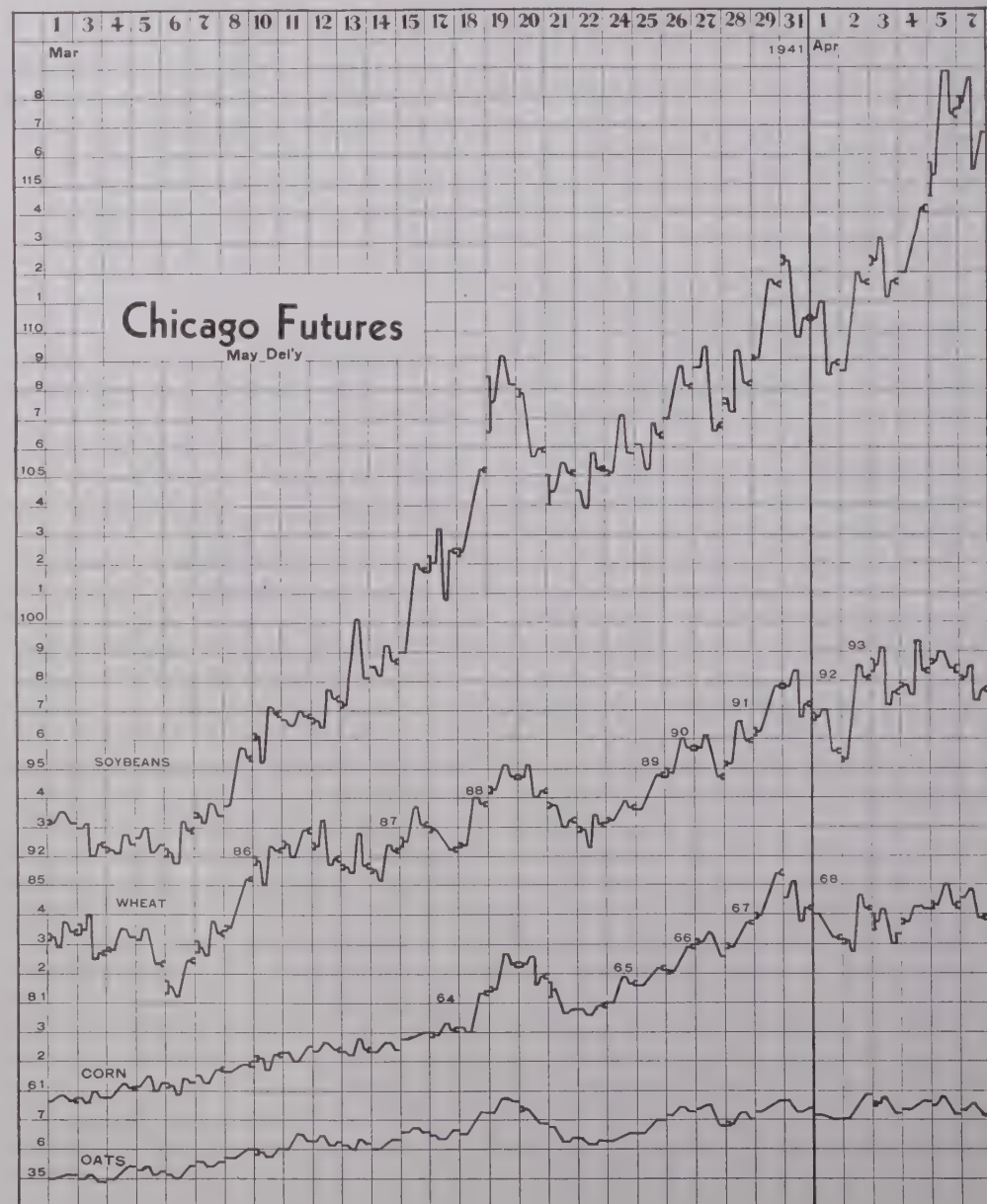
During the month the price of the dominant

wheat future—May—showed a net advance of 7¼ cents, closing at 91¼ on March 31. May corn advanced 6½ cts., closing at 67¼; oats advanced 2¼ cts., closing at 37¾; rye advanced 3¼ cts., closing at 46; and soybeans advanced 17¼ cts., closing at 110¾.

Daily Closing Prices

The daily closing prices for wheat, corn, oats, rye, barley and soybeans for May delivery at the following markets for the past two weeks have been as follows:

	Option		Mar.		Mar.		Mar.		Mar.		Apr.		Apr.		Apr.		Apr.		Apr.		Apr.		Apr.	
	High	Low	26	27	28	29	31	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
Wheat																								
Chicago	93¾	70	89¾	88¾	89¾	91¾	89½	92	91½	92	91½	92¼	92¼	91½	90½									
Winnipeg	79¾	75¾	77½	76½	76¾	76¾	76¾	76½	76½	76½	76½	76½	76½	76½	76¾									
Minneapolis	93¾	68¾	89	88½	89½	92	90½	89½	92	91½	92¼	92¼	92¼	91½	90									
Kansas City	86¼	63¾	82½	81¾	83	84¾	84¾	82½	85½	84¾	85½	85½	84¾	85½	83¼									
Duluth, durum	87	71¾	85¾	85½	85½	87	85½	83½	86½	85½	85½	85½	85½	86¼	85½									
Milwaukee	93	70	89¾	88¾	89¾	91¾	91½	89½	92	91½	92	91½	92¼	92¼	91½									
Corn																								
Chicago	68½	54¾	65½	65½	66½	68½	67½	66½	67½	66½	67½	66½	67½	66½	66½									
Kansas City	65	56	62½	62½	63¼	65	63½	62½	63¾	63¾	63¾	63¾	63¾	63¾	63¾									
Milwaukee	68¾	55	65½	65½	66½	68½	67½	66½	67½	66½	67½	66½	67½	66½	66½									
Oats																								
Chicago	38	28½	37¼	36¾	37	37½	37¾	37	37½	37¼	37½	37¼	37½	37¼	37½									
Winnipeg	36¾	26¾	35¾	36	36¼	36¾	36½	35¾	36¼	36	36½	36¾	36¾	36¾	36¾									
Minneapolis	34¾	26	33¾	33½	33¾	33¾	33¾	33¾	33¾	33¾	33¾	33¾	33¾	33¾	33¾									
Milwaukee	38	28½	37¼	36¾	37	37½	37¾	37	37½	37¼	37½	37¼	37½	37¼	37½									
Rye																								
Chicago	52½	40¾	44¾	44¾	44¾	45¾	45¾	45¾	46¾	46¾	46¾	46¾	46¾	46¾	46¾									
Minneapolis	50¾	39¾	45¾	45¾	45¾	46¾	46¾	46¾	46¾	46¾	46¾	46¾	46¾	46¾	46¾									
Winnipeg	60¾	43¾	55¾	55¾	55¾	56¾	57¾	57¾	56¾	58¾	58¾	58¾	58¾	58¾	58¾									
Duluth	50¾	39¾	45¾	45¾	45¾	46¾	46¾	46¾	46¾	46¾	46¾	46¾	46¾	46¾	46¾									
Barley																								
Minneapolis	44¼	38	43½	43½	43½	44	44	44	44	44	44	44	44	44	44									
Winnipeg	51¼	33¾	50¾	51	51¼	51¼	51¼	50¾	51¼	51¼	51¼	51¼	51¼	51¼	51¼									
Soybeans																								
Chicago	118½	69	108	106¾	108½	111½	110¾	108¾	111½	111½	111½	111½	111½	111½	114									
Canada Exchange	....	....	84¾	84¾	84¾	84¾	85½	87¾	87¾	87¾	87¾	87¾	87¾	87¾	87¾									



Development of Federal Regulation of Futures Trading

By J. M. MEHL, Chief of Commodity Exchange Administration, before Federal Bar Ass'n.

The experience of the bureau has been similar to that of many other federal agencies. It had its beginnings twenty years ago, in a new field, under a new law, with little legal experience, and stiff court tests ahead. Today federal regulation of futures trading is a tried and accepted function of democratic government; and the nation's commodity markets are a much healthier place to do business.

I can say this sincerely because when I first came to Washington I had a terrible time with government lawyers. To me they were the perfect example of a fifth wheel.

It is amazing how easy it is, in a place like the Supreme Court Library, to find authorities to support almost anything that an administrator hopes can be done. It finally dawned on me that the administrator of a federal agency trying to be his own lawyer is in about the same position as a lawyer trying to prosecute his own private lawsuit without the aid of other counsel. He may be good but not that good.

THE CUTTEN CASE.—Just how important a point of law can be in federal regulation of futures trading was illustrated in the well-known Cutten case. In 1935 a large trader named Cutten was charged with repeated attempts to manipulate the price of grain. Under the 'old Grain Futures Act, a person could not be criminally prosecuted for attempting to manipulate or corner the market. But it seemed to be the clear intention of the law to exclude such a person from the markets. However, the wording of the law was peculiar. It said the Secretary of Agriculture could have such a person excluded if he "is attempting to manipulate." The "is" was the significant word. The Supreme Court interpreted the language to mean that the Secretary could not act if manipulation was completed. In other words, where manipulation was successfully accomplished, there was nothing we could do about it. But not for long. In 1936 the Grain Futures Act was amended; its short title changed to Commodity Exchange Act; and manipulations and corners were made criminal offenses. Now offenders may be prosecuted for completed acts of manipulation as well as those in the making.

EARLY DEVELOPMENT OF FUTURES TRADING.—The making of contracts for future delivery of agricultural products and other commodities is nearly a hundred years old in this country. There are earlier antecedents in Europe and Asia. It attracted notice in the United States during the fifties. To assure supplies of mid-western grain, particularly for eastern and foreign buyers, Chicago dealers would make contracts several months in advance. A lively trade in "futures" developed. During the Civil War futures trading grew to large proportions in connection with supplying grain for the army; and in 1865 the Chicago Board of Trade adopted rules recognizing futures trading as a distinct commercial practice. Since then, futures markets have been developed in cotton, wool tops, fats and oils, and many other commodities. The annual volume of trading runs into several billions of dollars. Futures prices on the large markets are quoted thruout the United States and to a large extent determine the going cash prices of farm products.

DEVELOPMENT OF FEDERAL REGULATION.—Notwithstanding the essential economic services performed by the futures markets in reflecting supply and demand conditions, the exchanges were early subject to excessive speculation and other abuses. Efforts for

Federal intervention date from the eighties. The basic law under which we operate today was enacted in 1922. The act covered only grains. It was limited in scope and provided mainly a fact-finding agency. In 1936 the short title was changed to Commodity Exchange Act. Additional commodities such as cotton, butter and eggs were added; and the regulatory responsibilities were extended. Wool tops were added in 1938; and in 1940 many other commodities, including all fats and oils. Some commodities are traded in on more than one market. For example, wheat is traded in on eight markets. Altogether 18 markets are under supervision, and all but a few of the agricultural commodities in which futures trading is conducted.

ORGANIZED VS. UNORGANIZED SPECULATION.—We are constantly being asked, why we have regulation of futures trading. Why not prohibit it altogether? Why have this device for speculating in wheat and cotton by a lot of folks who have no interest in these commodities? That's a big question, too big for me to attempt to answer completely. There is a lot of speculation in the futures market under normal conditions and there is trading of a kind that may be termed gambling. It is unfortunate, however, that some people regard futures trading and speculation as synonymous terms. Some think we would prohibit speculation if we prohibited futures trading. That's not true. In the absence of government-fixed prices for commodities such as wheat and cotton, it is inevitable that there be speculation in those commodities. It is a question of choosing between organized speculation thru the medium of a futures market and unorganized, and often harmful, speculation in the actual commodities.

I believe it may be better to have speculation



J. M. Mehl, Washington, D. C.

conducted openly in futures on established exchanges where it can be under government supervision and subject to some control. Channeled thru these markets it can serve a useful economic purpose in enabling marketing organizations and dealers who want to avoid speculative risks, who are interested merely in service profits for merchandising and distributing, to pass price risks on to the body of speculators who are willing to assume these risks.

HOW HEDGING WORKS.—A co-operative grain elevator in Iowa buys 15,000 bus. of corn, on which it must realize 50 cents a bushel to come out satisfactorily. The corn is consigned to an eastern market for sale, but before it arrives the price drops 10 cents. Instead of running this risk, the elevator might have sold an equivalent amount of corn futures concurrently with its purchase of the actual corn. Assume the price of the future to be 53 cents a bushel, and that the price of this future also drops 10 cents a bushel by the time the consigned corn reaches the market. The elevator then is able to close the futures sale by a purchase at 43 cents which results in a profit exactly offsetting the decline in the cash market.

The example of hedging by a farmers' elevator is roughly applicable to dealers, millers and other processors who buy the actual commodity for distribution in trade channels. They sell futures in offsetting quantities simply as a form of insurance. They have no intention of delivering on these futures contracts, because they have more advantageous outlets. Their operating margins are such that they cannot afford to risk a price decline between the time they buy the actual commodity and the time they are able to merchandise it. To do so would mean a larger handling charge and an increase in the cost of marketing. And so there is an institutional aspect as regards futures trading and speculation in commodities that may not be ignored if we seek economy in distribution.

THE NEED FOR REGULATION.—There are also many abuses. There are opportunities for cheating and fraud, making regulation necessary. The markets have been manipulated against the interests of both producers and consumers. There was a time when the Hutchinsons and the Leiters and the other so-called "playboys" of speculation, used these public market places as a stage on which to parade their power over prices. They were the market leaders. Their operations churned the markets up and down without regard to fundamental conditions. They attracted followers by the thousands, suckers if you please, who made no appraisal of supply and demand conditions, but simply gambled on what the market leaders would be able to do.

The enforcement of the Commodity Exchange Act has effectively curbed the playboys of speculation, and the planned raids that occurred so often in the "good old days." This thing of large speculators using superior skill and knowledge of the market to take the public for a "ride" now invites fine and imprisonment. Since the law of 1936 went into effect, large-scale attempts to manipulate market prices have been few. Large traders in the important agricultural commodities are required to make daily reports of their transactions. The books of futures commission houses are periodically audited. In this way the Commodity Exchange Administration keeps close watch, not only on the activities of the big professional speculators but also on those in the cash business who have sometimes used the futures market speculatively to squeeze legitimate hedgers and traders.

LIMITATIONS ON SPECULATIVE TRADING.—Sometimes large-scale speculation may adversely affect prices even tho there is no intention to manipulate the market or take advantage of the trading public. Sometimes the market may turn against a speculator who

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Crop Reports

Reports on the acreage, condition and yield of grain and field seeds are always welcome.

Groveport, O.—Very dry in this part of Ohio; wheat looks fair.—North Bros.

Malden, Mo., Apr. 4.—Wheat acreage is about 100%; condition, 90%; corn, soybeans, 100%; hay, 110%.—Malden Grain Co.

Magnolia, Ky., Apr. 5.—More wheat sown this season than last year; less soybeans this year. A large effort for corn crop.—Magnolia Mill Co.

Springfield, Ill., Apr. 4.—Rains thruout Illinois during the last two days are improving the growth of winter wheat and aiding spring crops.

Spokane, Wash., Mar. 24.—Wheat crop prospects thruout northeast Washington and north Idaho are the best in years, according to a firsthand report.—F. K. H.

Morrill, Kan., Apr. 4.—Wheat 80% normal; oats just sown, good acreage; 10% wheat plowed up or put to oats.—The Farmers' Co-operative Ass'n, Lewis A. Cardwell, mgr.

Concordia, Kan.—Growing wheat in this section quite spotted on account of winter kill. Would say 15% to 20% lost. Moisture conditions extra good.—C. W. Bradshaw.

Randall, Kan.—We have a lot of winter kill north of town. They are planting barley and oats. Would estimate the loss in the north part of the Randall territory at 35%.—Kenneth Hart.

St. Anthony, Ind., Apr. 4.—There aren't any beans sown as yet and what will be sown have to be bought for seed. Wheat looks fair in fields but needs moisture.—St. Anthony Mill Co., by Wm. J. Hasenour.

Garland, Neb., Apr. 5.—Ninety per cent of our wheat will be sown to oats or barley. We have plenty of moisture at present and the crops will get a good start.—Germantown Farmers Grain Co., W. C. Grotts, mgr.

Meadville, Mo., Apr. 3.—Seventy-five per cent of wheat crop abandoned; 40% increase in oat acreage. Soybeans will be increased by 25%. Pastures greening up but late for this section.—Meadville Grain Co., F. L. Madden, mgr.

Muskogee, Okla.—Wheat looks very good but it is small on account of the cold weather. About 1/2 of the oats had been sowed some of which will have to be replanted. They need warm dry weather in that part of the state.—E. S. Bouldin.

Fort Worth, Tex., Mar. 26.—Crop conditions, as April approaches, are above average. Recent reports are that sections blown out of fall planted wheat have gotten good moisture in the past few days which can mean a season for the row crops to be seeded a bit later.—A. G. Campbell, sec'y, Texas Grain & Feed Dealers Ass'n.

Higginsville, Mo., Mar. 24.—The A. A. A. crop insurance com'tee of Lafayette County has received 650 requests for inspection of fields with a view to collecting insurance on wheat. Indications are for no more than 50 per cent of a wheat crop in some parts of the state.—A. H. Meinershagen, sec'y, Missouri Grain, Feed & Millers Ass'n.

Enid, Okla., Mar. 25.—On a 200-mile drive yesterday, going as far as Woodward territory west of Enid, wheat appeared to be in fine shape. Very few bare spots were seen and with warm weather, it looks as if wheat might grow an inch or two a day. Although the weather last week was not extremely favorable, yet it appears that some oats were planted, most farmers agreeing that it is not too late yet to seed oats.—E. R. Humphrey, sec'y Grain & Feed Dealers Association.

Dodge City, Kan., Apr. 5.—Recent weather for the most part has been favorable for winter wheat. Sufficient moisture mixed with sunshine and except for some damage from soil drifting, the crop has made good progress. Conditions in the western half of the state where at least 80% of the seeded acreage might at this time be rated at well above average; while in the eastern part of the state crops are later and some areas suffered heavy acreage losses from the November freeze, but conditions there may be rated at about average.—J. F. Moyer, sec'y, Kansas Grain, Feed & Seed Dealers Ass'n.

Boonville, Ind.—Farmers of Warrick County report they have been unable to do much plowing because of the dry condition of the ground. Rain is badly needed and many farmers have been forced to haul water for their livestock for several months. Growing wheat is looking good.—W.B.C.

Chicago, Ill., Apr. 2.—Our forecast of the winter wheat prospect is 621,000,000 bus., a month ago 617,000,000. The prospect generally is good except in an area comprising central and south-east Nebraska, northeast Kansas, northwest Missouri and western Iowa. The wheat in this area was badly damaged by a sudden freeze last Nov. 11. This is also the only important area where abandonment will likely be heavy. Abandonment is expected to be about 4,900,000 acres, or 10.6 per cent of the acres planted, leaving for harvest, from present indications, 41,373,000 acres.—Nat C. Murray, statistician, Jackson & Curtis.

Marysville, Kan., Apr. 3.—The acreage of wheat seeded last fall in Marshall County appears to be about normal and I would say the damage caused by winter kill will amount to about 30%. We believe at least 20% of this has been reseeded to oats, 10% being planted to alfalfa, soybeans and sorghums. Farmers in this locality are increasing the acreage of grain sorghum and soybeans each year since we have had so many corn failures and sorghum grain produces nearly a normal crop regardless of drouth. Marshall County produces more certified Atlas Sorgo than any other county in the state of Kansas, the seed being of the very finest quality.—Fred Forst, Forst Seed Co.

Chicago, Ill., Apr. 2.—Winter wheat prospects generally remain good insofar as fundamentals of fall and winter weather were concerned. The present prospective abandonment is 11.0 per cent compared with an average of 17.5 per cent and it is on this that most of the assured optimism is based as it is the lowest abandonment for about ten years. In addition to lesser abandonment, most additional optimism is based on the best reserve moisture for ten years, even tho these reserves are still below normal in large areas of the Southwest and Northwest. Indicated yield per acre sown is 13.2 bus., compared with 13.4 bus. last year and the 1928-37 average of 11.9. Indicated winter wheat production is 609,166,000 bus.—R. O. Cromwell, statistician, Lamson Bros. & Co.

Minneapolis, Minn., Apr. 5.—Rains in California continue to interfere with the normal maturing of their flaxseed crop; undoubtedly some damage has been done by lodging due to bad winds and continued excessive rains. In Texas heavy rains along the littoral are unfavorable for the growing flaxseed crop and rust has damaged the flax crop there in varying degrees. In Kansas the weather has been ideal and the seeding of flaxseed is under way. In the North-western states—where the bulk of the domestic flaxseed is produced—surface and subsoil moisture conditions are favorable and there have been three or four days of warm, drying weather which was needed to place the soil in condition for seeding. The weather during the last few days, however, has been showery which is desirable.—Archer-Daniels-Midland Co.

Madison, Wis., Apr. 1.—Wisconsin's barley acreage this year is expected to be the smallest in 15 years. A reduction in the barley acreage is also shown for the nation as a whole. The barley acreage in the state has been declining for several years. This decline has in part been the result of competition with other crops, unfavorable weather conditions during harvesting time last year, and low prices received for the crop during some recent years. Wisconsin has been one of the important producers of barley for malting purposes and the quality of the crop has been high in most years. Present estimates indicate that the 1941 barley acreage will be only 569,000 acres compared with 654,000 acres planted in Wisconsin last year. The prospective acreage will be nearly 30 per cent below the 10-year average for the state and the smallest acreage since 1926.—Wisconsin Crop Reporting Service, U. S. and Wisconsin Depts. of Agr.

Kansas City, Mo.—The damage seems to be principally in the late fall seeded wheat, which had only a bare start when the early November freeze came. Upon close inspection in many of these fields, we found little total destruction; so that with particularly favorable weather, many acres now thinned badly could still make a fair stand. Some acreage, of course, is entirely gone, and has been and is being plowed up for spring crops; but unless future developments disclose more than is now apparent, total aban-

donment throughout the state, in our opinion, will not exceed probably 15%. We can estimate a probable production of 160,225,000 bus. We believe serious loss has occurred in the Texas Panhandle, especially north and west of the Texas-Oklahoma border Panhandle Counties, although good moisture has been received there the past two or three days. The outlook in Oklahoma we find mostly very satisfactory.—H. L. Robinson, Robinson Elevator Co.

Large Argentine Corn Crop

Argentina's new corn crop, on the basis of latest acreage estimates and a continuation of favorable weather, is expected to reach 400,000,000 to 470,000,000 bus., compared with 408,000,000 bus. last year and a 5-year average of 311,000,000 bus., reports the U. S. D. A. office of Foreign Agricultural Relations. On Mar. 8 the Argentine held an exportable surplus of 250,000,000 bus. Normal domestic use is 61,000,000 bus.

The Argentine government grain board has made a reduction in its guaranteed price to farmers for corn from the new crop of 17½¢ per bu., to the equivalent of 26½¢ in American funds. The surplus of corn at the close of the old crop year was 221,343,000 bus., compared with 9,057,000 bus. a year ago. Exports have totaled 65,406,000 bus., compared with 130,943,000 in the previous year.

Buffalo, N. Y.—Industrial Commissioner Frieda S. Miller, reporting on a study of "grain fever" in a group of workers from the Grain Handlers Union, said almost one-third were affected at one time or another. Commenting on the workers' abnormal susceptibility to respiratory disease, the report called attention to exposure to grain dust, exposure to inclement weather, and "fairly common use of alcohol to 'cut the dust.'"

The U. S. Circuit Court of Appeals on Apr. 2 decided against the N.L.R.B. in the case of the Auburn Foundry Co., Auburn, Ind., finding that the discharge of a worker was justified, and not due to his union activity as alleged by the Labor Board. Judge Major said: "This case is another illustration where, in our judgment, a controversy could have been amicably adjusted by an election where the employees could have, by secret ballot, expressed their preference."

Corn Movement in March

Receipts and shipments of corn at the various markets during March, compared with March, 1940, in bushels, were:

	Receipts		Shipments	
	1941	1940	1941	1940
Baltimore	321,133	549,360	.....	1,123,487
Chicago	8,799,000	4,814,000	4,179,000	1,046,000
Duluth	412,345	299,285	9,388	.....
Ft. Wm.	54,625	3,293	57,569	13,357
Ft. Worth	45,000	55,500	87,000	28,500
Hutchinson	12,000	.....	.....	.....
Indianapolis	2,142,000	1,129,000	1,506,000	1,024,500
Kan. City	1,021,700	766,500	186,000	544,500
Milwaukee	322,250	330,150	156,000	195,000
Minneapolis	1,099,500	544,500	688,500	567,000
New Orleans	10,301	713,636	88,500	361,714
Omaha	969,076	609,989	756,622	961,491
Peoria	2,334,266	1,580,700	1,092,766	629,800
Superior	333,201	208,663	1,573	.....
Wichita	1,300	.....	.....	.....

Wheat Movement in March

Receipts and shipments of wheat at the various markets during March, compared with March, 1940, in bushels, were:

	Receipts		Shipments	
	1941	1940	1941	1940
Baltimore	1,686,808	2,003,066	1,077,671	3,954,175
Boston	884,666	983,998	1,249,207	1,627,908
Chicago	765,000	685,000	1,123,000	1,415,000
Duluth	1,149,101	4,571,457	284,591	73,219
Ft. Wm.	2,221,198	2,924,629	405,069	60,500
Ft. Worth	204,400	224,000	564,200	652,400
Hutchinson	950,600	869,400	.....	.....
Indianapolis	260,000	223,000	263,000	268,000
Kan. City	2,835,200	3,504,000	2,655,805	1,569,695
Milwaukee	21,980	1,570	67,200	23,800
Minneapolis	4,548,000	10,059,000	1,774,500	2,041,500
New Orleans	.....	61,908	45,516	268,071
Omaha	611,507	920,482	601,854	718,200
Peoria	120,900	33,600	147,300	39,600
Superior	1,343,864	2,037,570	152,436	38,857
Wichita	1,423,500	1,071,000	987,000	777,000

Grain Movement

Reports on the movement of grain from farm to country elevator and movement from interior points are always welcome.

Malden, Mo., Apr. 4.—Wheat in farmers' hands, 1%; corn, 8%, soybeans, 10%; hay, 2%.—Malden Grain Co.

Morrill, Kan., Apr. 4.—Very little grain still in farmers' hands.—The Farmers Co-operative Ass'n, Lewis A. Cardwell, mgr.

Magnolia, Ky., Apr. 5.—Most of wheat sold to elevators and elevators seem to have a good supply on hand.—Magnolia Mill Co.

Meadville, Mo., Apr. 3.—Very little grain left in farmers' hands which is not under government seal.—Meadville Grain Co., F. L. Madden, mgr.

Duluth, Minn.—The Canadian movement of wheat to this market has fallen to a minimum, a few straggling cars being received off and on and not much more is expected to arrive.—F.G.C.

Decatur, Ill., Mar. 29.—There has been a steady movement of corn from the start of harvesting last fall, and in many localities a fair percentage of the 1940 crop has moved off the farms. Government stored corn in warehouses, sealed on farms and stored in steel bins is, however, the other side of the corn picture. Present values probably mean that very little more corn will be placed under seal; rather it will move to market as prices become attractive for growers to sell. There is an urgent world need for meats and fats, and surplus corn will be converted into these channels as fast as the livestock population can consume it.—Baldwin Elevator Co.

Duluth, Minn.—Grain receipts for the month of March reached 3,093,116 bus., of which 1,172,254 bus. were Canadian wheat for storage in bond. Last year there was no bonded grain received but arrivals totaled 5,839,124 bus., mostly wheat moved in by redemption of loans. Shipments last month ran 456,472 bus. against 385,646 bus. in the corresponding period last year. Grain carried in local elevators topped 40,576,000 bus. Apr. 4, some 7,000,000 bus. more than stored at the same time a year ago. Storage space is commencing to be crowded and elevator operators are hoping for arrival of steamers from below to bring relief from congestion and plugged situation.—F. G. C.

Barley Movement in March

Receipts and shipments of barley at the various markets during March, compared with March, 1940, in bushels, were:

	Receipts		Shipments	
	1941	1940	1941	1940
Baltimore	12,140	4,352	.....	.....
Chicago	1,076,000	1,004,000	307,000	249,000
Duluth	293,551	228,295	142,763	264,226
Ft. William	495,156	804,073	776,146	247,025
Ft. Worth	4,800	.....	4,800	.....
Hutchinson	20,800	.....	.....	.....
Indianapolis	4,500	.....	4,500	1,500
Kansas City	86,400	20,800	33,600	1,600
Milwaukee	2,474,200	1,358,140	1,922,925	333,150
Minneapolis	2,827,100	2,363,000	2,567,000	2,373,200
Omaha	21,958	11,200	9,600	13,833
Peoria	293,400	264,600	150,400	151,900
Superior	85,212	138,865	93,952	248,257

Oats Movement in March

Receipts and shipments of oats at the various markets during March, compared with March, 1940, in bushels, were:

	Receipts		Shipments	
	1941	1940	1941	1940
Baltimore	89,243	55,111	.....	.....
Boston	7,600	11,900	.....	.....
Chicago	1,374,000	1,082,000	1,226,000	1,453,000
Duluth	56,237	239,484	.....	36,843
Ft. Wm.	1,225,563	1,510,185	1,792,075	1,031,313
Ft. Worth	68,000	124,000	42,000	134,000
Indianapolis	522,000	422,000	594,000	534,000
Kansas City	102,000	102,000	44,000	36,000
Milwaukee	58,760	36,160	55,100	104,500
Minneapolis	1,604,250	1,480,500	1,593,000	1,464,750
New Orleans	.....	95,987	51,560	34,764
Omaha	94,000	276,000	78,350	226,337
Peoria	207,200	298,000	165,000	228,800
Superior	7,900	30,934	4,859	55,100
Wichita	.....	4,500	.....	1,500

Marysville, Kan., Apr. 3.—With the exceptions of government stored grain we doubt very much if more than 10% to 15% of the wheat is still in farmers' hands.—Fred Forst, Forst Seed Co.

St. Anthony, Ind., Apr. 4.—Not much wheat left over as farmers need nearly all for feed. Also corn is scarce here, about half enough raised for home consumption. We buy all of our corn from truckers from Illinois for manufacturing feeds and mashers.—St. Anthony Mill Co., by Wm. J. Hasenour.

Ottawa, Ont., Apr. 3.—Canadian wheat in store for the week ending Mar. 28, decreased 543,256 bus., compared with the preceding week and increased 172,293,132 bus. when compared with the corresponding week in 1940. The amount in store was reported as 483,014,004 bus. compared with 483,557,260 bus. for the preceding week and 310,720,872 bus. for the week of March 29, 1940. Wheat receipts in the Prairie Provinces for the week ending March 28, 1941, amounted to 4,392,569 bus., a decrease of 133,411 bus. from the revised figures of the previous week when 4,525,980 bus. were marketed. During the corresponding week a year ago the receipts were 1,934,189 bus. Marketings in the three Prairie Provinces for the 34 weeks from Aug. 1, 1940, to Mar. 28, 1941, as compared with the same period in 1940 were as follows, figures within brackets being those for 1940: Manitoba 44,380,554 (50,473,159); Saskatchewan 177,729,781 (212,016,251); Alberta 117,310,999 (118,052,250) bus. For the 34 weeks ending Mar. 28, 1941, and the same period in 1940, 339,421,334 and 380,547,636 bus. were received from the farms.—R. H. Coats, Dominion Statistician.

Futures Trading and Farm Prices

By NAT C. MURRAY, statistician

Farmers have received higher prices for their grains when the volume of trading in futures was large than when the volume was small. Or, expressed in another way, the volume of trading in futures has been large when farm prices were high, and small when prices were low.

The Commodity Exchange Administration has compiled the volume of trading in futures for the past nineteen years. We have arranged these years in the order of magnitude of trading (in wheat and corn respectively), and have computed the average production and the average farm price per bushel, for the five years of heaviest trading in futures, the five years of smallest trading and similarly for the nine mid years, with the following results, millions of bushels, and cents per bushel.

	Volume future trades	Crop bu.	Farm price cents per bu.
Wheat—	000,000	000,000	.....
5 years heaviest trading	14,498	756	112
9 years mid	9,067	779	83
5 years lightest trading.	6,283	719	75
Corn—	.....	.....	.....
5 years heaviest trading	5,812	2,585	86
9 years mid	3,605	2,370	64
5 years lightest trading.	2,507	2,539	51

All figures were compiled from government reports.

Some reports indicate that, due to the higher prices prevailing for soybeans, farmers may plant a larger acreage than they expected to in the fore part of March.—Fred A. Record.

Rye Movement in March

Receipts and shipments of rye at the various markets during March, compared with March, 1940, in bushels, were:

	Receipts		Shipments	
	1941	1940	1941	1940
Baltimore	52,925	307,461	800	.....
Boston	.....	1,100	.....	.....
Chicago	52,000	49,000	170,000	181,000
Duluth	23,505	498,387	19,605	10,100
Ft. William	81,142	93,648	24,162	14,479
Indianapolis	7,500	24,000	51,000	55,500
Kansas City	1,500	28,500	12,500	1,500
Milwaukee	40,770	43,790	42,670	67,770
Minneapolis	691,500	835,500	304,500	342,000
New Orleans	1,500	.....	.....	.....
Omaha	.....	89,763	85,400	38,330
Peoria	79,200	31,200	13,200	.....
Superior	23,908	404,801	16,750	15,000

More Mill Storage Under Construction

For several years past the flour millers, of the Southwest particularly, have been adding to the storage capacity of their plants, and the wisdom of this policy is being amply demonstrated right now.

In line with this movement is the construction of the 1,000,000-bu. storage addition to the Shellabarger Mill & Elevator Co.'s terminal elevator at Salina, Kan., on which work is being pushed, the artist's drawing showing how it will appear when completed about May 15, in ample time for the next harvest.

The original elevator was built in 1928 and consisted of the head house and the storage annex nearest to the eye in the picture on which is shown the sign "Shellabarger." The working house is 42x44 ft., and 201 ft. 4 ins. high above track level, and has a basement 21 ft. 2 ins. deep. Grain unloaded from cars is taken by a 36-in. belt conveyor into the basement and discharged into either of two elevator legs, each having a capacity of 10,000 bus. an hour. Space is provided for the installation of a fourth leg. The third leg on the opposite side of the house now is used for re-elevating.

The addition being added this year is that storage bin annex on the far side of the head house on which is shown the sign "Since 1776."

The surface soil on this site consists of a river bottom silt for a depth of about 25 ft. For that reason the original construction was built on concrete piling down to a gravel hardpan. A unique feature in the construction of this 1941 addition is that the foundation extends down to this same gravel strata thus eliminating the necessity for pile foundations and at the same time affecting a considerable economy in construction. This excessively deep basement is then backfilled with earth and a false basement floor put in at the right elevations so as to draw off the bins efficiently, and at the same time gain access to the headhouse basement. It is the first time that such a method of foundation construction has been used and has been brought on principally by the scarcity of pile-driving equipment in this territory. The equipment normally used for pile driving is now being kept busy on various defense contracts.

The new construction consists of 24 round bins 22 ft. in diameter and 14 interstice bins having a total capacity of approximately 1,000,000 bus. In the basement are located two 30" belt conveyors each driven by 20-h.p. totally enclosed motors. In the Texas gallery are two distributing conveyors each 30" wide driven by 20-h.p. totally enclosed motors.

The addition was designed by Horner & Wyatt, who were the engineers on the original plant. The construction is being done by Chalmers & Borton.

See outside front cover page for illustration.

Prospects at present are for a world wheat crop in 1941 not greatly different from that of last year. Much, however, will depend upon developments in Canada, where a new Government program calls for a large reduction in this year's wheat crop. On the other hand, some increase is expected in Europe and Australia over last year's small outputs. At present little change is expected in the United States, and a small reduction is probable in Argentina.—U.S.D.A.

Soybean Movement in March

Receipts and shipments of soybeans at the various markets during March, compared with March, 1940, in bushels, were:

	Receipts		Shipments	
	1941	1940	1941	1940
Baltimore	.....	1,697	.....	.....
Chicago	666,000	487,000	100,000	259,000
Indianapolis	70,500	70,500	66,000	70,500
Milwaukee	45,120	14,300	.....	.....
Minneapolis	1,500	2,600	25,200	.....
Omaha	42,000	.....	.....	.....
Peoria	201,700	54,777	371,200	65,727

Commission Merchants Denied Handling of C.C.C. Corn

Paul E. Appleby, undersec'y, has announced a decision by the U. S. Dept. of Agri. denying commission merchants the handling of C.C.C. corn at $\frac{1}{2}$ c per bu., as the Federation of Cash Grain Commission Merchants Ass'n has proposed at hearings before U.S.D.A. officials in Washington. The announcement reads:

"After giving consideration to the valuable services rendered by the cash grain commission merchants to country elevators and farmers in the marketing of corn; to the proposal suggested by them for handling, at a cost of $\frac{1}{2}$ c per bu., a portion of the operations involved in the movement of corn from country points to terminal locations; and to the policy of the Department of Agriculture to use private industry wherever possible in handling similar operations when the costs to the government are commensurate with the value of the services rendered, and when such handling would be in keeping with governmental policies and necessities: we have concluded that the cost of $\frac{1}{2}$ c per bu. for the proposed services to be performed by the cash grain commission merchants could not be justified because of the much lower cost for which these services have been performed by the C.C.C.

"Officials of the Department of Agriculture have contended that:

(1) There is no question raised as to the valuable services rendered by cash grain commission merchants to country elevators and farmers.

(2) When the C.C.C. takes title to commodities under its loan programs it is required to function under established governmental procedure and policies. It has interpreted this procedure and these policies as requiring custodianship of all collateral, verification of all expenditures through auditing, accounting and stock records, and care in preserving the physical commodities until disposed of, and supervision to see that all funds are returned to the corporation.

(3) In carrying out these responsibilities, insofar as it is legal, practicable, economical and in conformity with the program involved, it has desired to utilize rather than forgo the services and facilities of private industry. In the movement of corn the department has desired to follow this policy if the rate to be paid is commensurate with the value to C.C.C. of the services rendered for the corporation.

(4) This practice of using, rather than forgoing, the services and facilities of private industry when the cost is commensurate with the value of the services rendered and when the procedure will be as clearly in line with program objectives and governmental responsibilities, has not only been adhered to by C.C.C. in the movement of corn from country to terminal locations but has also been followed in the handling of transactions involving numerous other commodities by the corporation.

(5) In applying the policy to the corn movement it has been the opinion of the C.C.C. in the past that a cost of $\frac{1}{2}$ c per bus. for handling this corn was so far out of line with the cost to the government in performing this service for itself that the use of the cash grain commission merchants could not be justified.

Conclusion—"Your committee concurs with the policy of the C.C.C. in not using the services of the cash grain commission merchants for these corn movements because the analysis of the costs to C.C.C. for moving 56,905,794.42 bus. of corn from country locations to terminal storage during the period from July 15, 1940, to Oct. 15, 1940, was estimated at \$45,150.95, or \$0.0007933 per bus., or \$1.3028 per car of 1,600 bus. capacity. While if the services which the cash grain commission merchants proposed to perform

at a cost of $\frac{1}{2}$ c per bu. had been utilized, the cost would have been an estimated amount of \$316,686.43, or \$0.0055651 per bu., or \$9.114 per car of 1,600 bus. capacity. These estimates were developed by a subcommittee in charge of the assistant director of finance of the Department of Agriculture."

Cash grain commission merchants considered the decision a severe threat to their continued existence.

Cleaners clogged by shucks and cobs do a poor job of cleaning and the capacity is reduced greatly.

Barge-Loading Country Elevator

By J. R. McCANN

Coincident with the development of inland waterways by the government has come the revival of water borne freight traffic, so vital and important in years gone by. Grain men were quick to realize the value of low cost barge shipping of grain, and the tendency of elevator men fortunate enough to be located close to inland waterways is to develop facilities for utilizing this low cost transportation.

Typical of this movement is the elevator built by the Ursa Farmers Co-operative Co., of Ursa, Ill. This company, under the able management of A. M. Woodruff, constructed a river elevator at Meyer, Ill., on the Mississippi River about midway between Quincy, Ill., and Keokuk, Ia. This house, complete and modern in every respect, represents an investment of \$37,000 including piling, fill, etc., and bids fair to become an important grain outlet for the immediate territory.

In a season which last year began July 5 and closed Nov. 20, a total of 250,000 bus. of grain was shipped from this elevator, the average barge load being 40,000 bus. This year the operators of this house will be able to take advantage of the normal season which opens March 1 and closes Nov. 20, and the volume of grain shipped from this point will be considerably increased.

Grain shipped last year from this point went to Tennessee, St. Louis and Davenport.

Grain shipped by barges is making serious inroads on the freight business of the railroads. The advantage of barge shipments is readily apparent by a comparison of rates. The average freight rate from this point via the railroad is 15c per 100 pounds, compared with barge rate of only $4\frac{1}{4}$ c per 100 pounds.



New Barge Loading Elevator at Ursa, Ill.

Washington News

Senate and House differences in the \$4.-398,000,000 supplemental defense appropriations bill involve Argentine canned beef and Australian wool for American doughboys. Efforts are being made to include a "buy American" provision to govern army and navy purchases of food and clothing.

The U. S. Department of Agriculture purchased approximately \$10,000,000 worth of surplus food commodities during the last half of March, including 154,285 bbls. wheat flour, 59,230 cases eggs, 37,507,200 lbs. lard, 4,723,000 lbs. cheese, 9,291,050 lbs. dry skimmed milk, and 1,125,000 cases evaporated milk. While some of these purchases may go to Britain under the terms of the lend-lease act, the department anticipated that "British purchases of food do not seem likely to exceed 3% to 4% of the nation's total food bill."

U. S. D. A. Officials have announced that the corn loan program which puts a bottom of 61c per bu. under corn thru C.C.C. loans, will be continued thru 1941 and 1942 to assure ample supplies of feed for expansion of livestock and poultry production, but C.C.C. corn will continue to be offered at the loan rate plus carrying charges to prevent advances that would make pegged prices for livestock and poultry products unprofitable to producers. Farmers in the commercial corn producing area are to be allowed up to their "usual" acreage in 1941 without losing eligibility for corn loans, and parity payments.

The Senate, following Sec'y of Agriculture Claude Wickard's recommendation, has adopted and sent to the House legislation to increase penalties for marketing "excess" corn and wheat from 15c a bu. to 30c for corn and 50c for wheat when marketing quotas are in effect. Under this new legislation, producers may be asked in the quota referendum (May 31 for wheat) to vote for market control for two years, one year, or none. Under another provision the sec'y of agriculture could require farmers to store their "excess" production or turn it over to the government in lieu of penalties. Exempt from the Senate bill are farms with less than 15 acres in corn and wheat.

The Senate has boosted the farm aid bill to \$1,340,000,000 to increase parity payments to farmers in line with Bankhead's bill to assure farmers of loans on wheat, rice, cotton and tobacco at 85% to 100% of "parity." The Senate vote added \$238,000,000 for parity payments to the \$212,000,000 recommended by the Budget Bureau, and approved by the House; \$35,000,000 to the \$100,000,000 approved by the House for farm surplus removal subsidies, including the food stamp plan. Included in the bill is \$500,000,000 for payments of "soil conservation" subsidies. Parity payments under the Bankhead plan would be \$1.05 a bu. on wheat; 71.2c a bu. on corn. A schedule in the amended bill provide that when quotas are not in effect on wheat, cotton, rice and tobacco, loans may be made up to: 90% of parity when production is not in excess of 5% of demand; 85% when in excess by more than 5%, but not more than 10%; 75% when in excess by more than 10%, but not more than 15%; 70% when in excess by more than 15%, but not more than 20%; 65% when in excess by more than 20%, but not more than 25%; 62% of parity when production exceeds demand by more than 25%.

Washington, D. C.—The U. S. Bureau of the Census reports that an average of 1,086 reporting mills ground 320,341,263 bus. of wheat into 70,417,323 bbls. flour during the 8 months ending February, 1941, compared with an average of 1,054 mills reporting grinding of 327,044,077 bus. of wheat into 71,663,650 bbls. flour during the like period a year ago.

Smut Spores Carried

Spores of loose smut of wheat (*Ustilago tritici*) may ride the wind for 100 miles and cause new infections, according to A. J. P. Oort (*Tijdschr. Plantenziekten*).

He claims that strong winds carries the spores in an almost horizontal line, and that heavy infection occurs close to the origin of the spores, the infection gradually diminishing with the distance from the source of the spores.

The movement of the spores in gentle breezes involves vertical air currents. This movement results in spotted new infections, smut islands alternating with more or less smut-free spots.

Application of Wage and Hour Law

The Act makes no distinction as to the percentage of the employer's goods, or the goods upon which an employee works, that move in interstate commerce. However, work which is subject to the Act may be segregated from work which is not subject to the Act, altho the burden of establishing such segregation is the employer's.

In order for the Act to apply, it is not necessary that the producer himself ship the goods across state lines. If at the time of production, the employer intends or hopes or has reason to believe that the goods or any unsegregated part of them will move in interstate commerce, employees engaged in the production of such goods, or in any process or occupation necessary to the production of the goods, are within the coverage of the Act. You will find the question of segregation dealt with in Paragraph 9 of our Interpretative Bulletin No. 5.—General Philip B. Fleming, administrator, before Pennsylvania Milk Dealers at Harrisburg, Apr. 2.

Substantially Built Oregon Elevator

Wheat growers of Northeastern Oregon accustomed to handling grain in sacks will find it a pleasure to haul their crop to the new elevator erected by S. R. Thompson at Blakeley where they will receive speedy unloading of their large trucks coming direct from the combine.

A specially designed reinforced slab concrete foundation supports this 140,000-bu. elevator, constructed of kiln dried cribbing, 2x10 at the bottom and then 2x8 and 2x6 and 2x4 at the top of the 126-ft. high structure.

The capacity of the bins ranges from 2,500 to 9,000 bus., 12 bins extending to the foundation and 12 bins being over the work floor and driveway. The walls are covered with 26 gauge corrugated galvanized steel and the roof with standing seam galvanized steel.

Grain is received over a 20-ton Howe motor truck dump scale which is fitted with an air truck lift. The scale has a 26x9 ft. platform, while the lift raises 6 ft. 4 in. Two legs convey the grain to the cupola. The legs are fitted at the head with Winter Universal Head Drives connected direct to 10-h.p. Fairbanks Morse Motors. Calumet super capacity buckets fastened on 5-ply, 32-oz. belt were used, giving each leg an hourly capacity of 2,500 bus.

In the cupola is installed a Gerber double sliding distributor which conveys the grain to the proper bins by means of heavy gage steel spouting. These legs are set in a large steel boot tank, 20 ft. deep, with pit arrangement for receiving and shipping grain.

A 500-bu. Howe Hopper Scale is located on work floor. This scale is used for weighing grain into cars for shipment or back into bins.

Ready access to the cupola is obtained thru a manlift. This lift is equipped with double safety brakes.

The plant has excellent shipping facilities over the O-W R. & N. Co. It was designed and built by the Hogenson Construction Co.

Insect Damage to Soybeans

A rootworm grub that in past years has been destructive to corn is transferring its unwelcome attention to the soybean plant.

This insect is well known to the Illinois State Natural History Survey, J. H. Bigger, associate entomologist, describing it as follows:

"The grape colaspis is an insect which we have known as a pest of corn where corn was planted on ground following the growth of various legumes and where these legumes have been grown on that field for two or more years in succession. Previous to 1939 it was not recognized as a pest of soybeans, but has apparently adapted itself to conditions in soybean fields during recent years. In 1940 there was a very large acreage of soybeans which was seriously damaged in the field. In many cases at least 50% of the plants were killed in the early stages of their growth. We know of some cases where production in fields was reduced radically due to the damage of this pest.

"The adult of the insect feeds on the leaves and blossoms of the legumes during the late summer, as well as feeding on some other plants. The eggs are laid around the roots of these legumes and the larvae hatch in the early fall. They feed until winter on the roots, and then burrow into the soil to a depth of 8 to 12 inches to pass the winter. In the spring they return to the upper layers of soil and again feed on the roots of the legumes if they are still present. If corn or soybeans are planted in place of the previous crop, they then feed on the newly planted corn or beans. The feeding is done by the larvae on the surface of the primary roots. This injury of course cuts off the feeding roots and causes symptoms of starvation of the plants, typically a dying back from the edges of the leaves. When sufficient numbers of larvae are present, or where feeding continues over a long period, the plants eventually die. If the season is early and the larvae mature early, the plants may not die but may recover to produce a crop, though not as much as they might have produced undamaged.

"In general, the larvae should mature during the first half of June, pupate in the soil and produce adults during the latter part of July or in August. If the season is late, this maturity of the larvae may be delayed, and in that case they will feed longer and the damage will be more serious.

"Our present observations are to the effect that damage to soybeans occurs only where they are planted in fields where a legume was grown the previous year, typically, where soybeans are being grown for the second, third, or fourth year in succession on a field.



140,000 Bu. Cribbed Elevator at Blakeley, Ore.

"Our insect light traps caught more adults of this insect last summer than at any previous time of which we have record, which leads us to be afraid of what may occur during 1941. On the other hand, the fall of 1940 was very dry, and the larvae may not have developed as usual, which means that we rather expect an abundance of the insect but are not sure that the infestation will develop to serious proportions."

CCC 1940 Corn Loan

The Commodity Credit Corporation has announced that up to March 22, 1941, it had made 90,934 loans for \$52,432,958.90 on 86,058,857 bus. of the 1940 corn crop. Fifty-six loans on 45,196 bus. already have been repaid. Loans by States follow:

State	No. Loans	Bushels	Amount
Illinois	10,972	11,677,926	\$7,123,313.78
Indiana	927	798,955	487,334.59
Iowa	49,541	49,586,411	30,247,050.75
Kansas	742	525,541	318,445.19
Kentucky	24	66,890	40,802.90
Michigan	9	5,649	3,445.89
Minnesota	8,081	6,310,229	3,842,466.60
Missouri	3,004	2,559,977	1,560,106.90
Nebraska	12,565	10,821,681	6,555,023.79
North Dakota	89	105,576	48,603.24
Ohio	399	224,828	137,145.08
South Dakota	4,552	3,361,550	2,031,163.15
Wisconsin	29	13,644	8,057.04
Total	90,934	86,058,857	\$52,432,958.90

California Ass'n Will Convene at San Francisco

The California Hay, Grain & Feed Dealers Ass'n will convene at the Palace Hotel, San Francisco, Apr. 24, 25 and 26.

Thursday afternoon will be devoted to bowling and a golf tournament; Thursday evening to pre-convention discussion of legislative bills now offered in the California legislature and of special interest to hay, grain and feed dealers.

Friday, business sessions will be held both in the forenoon and afternoon. A luncheon will be held at the Merchants Exchange building during the noon recess.

Friday evening is the annual banquet and entertainment, a stag for the men; special entertainment for the ladies.

Saturday the new board of directors will outline the ass'n program for the year ahead. For the convention delegates there will be a visit to the new U.S.D.A. regional laboratory at Berkeley.

Proposed Revision in Standards for Soybeans

A proposed revision of the official grain standards of the United States for soybeans was announced Mar 31, by C. W. Kitchen, Chief of the Agricultural Marketing Service. The principal changes involve moisture content and split soybeans as grading factors and the adoption of a dockage system. The proposal is made at this time, Mr. Kitchen said, so that interested persons may have an opportunity to study the suggested changes prior to public conferences to be held in the principal producing and marketing areas during May.

Suggestions for changes in the present official standards have been received from growers, dealers, processors and inspectors. The soybean standards now in use have been in effect under the Grain Standards Act since Nov. 20, 1940, and for 5 years prior to that time were effective as permissive standards.

Results of research in grain standardization, it is pointed out, indicate the advisability of considering a reduction in the maximum limits of moisture for certain grades and an increase in the quantity of split soybeans permitted in each of the numerical grades. Furthermore, it has been found that the incorporation of a dockage system in the standards for soybeans would be desirable from the standpoint of present-day production, merchandising and processing conditions.

Insect Pests of Stored Grains

By F. GRAY BUTCHER, extension entomologist, North Dakota Agricultural College, Fargo, N. D.

Normal conditions in North Dakota do not favor multiplication of stored grain pests. Low winter temperatures in this area will normally kill the large proportion of the serious grain pests encountered. The minimum amount of grain stored on the farm under normal circumstances, and the relatively short storage period are not conducive to a build-up of infestations of these pests. However, under present conditions, there has been a decided increase in both the amount of grain in storage thruout the state and in the length of time such grain is being held in storage, factors which tend to favor the establishment and maintenance of stored grain infestation.

The GRANARY WEEVIL and the RICE WEEVIL are among the most important stored grain pests. Both species are cosmopolitan in distribution, but are more important in warmer climates. These insects will not normally survive winter conditions in this area unless they are well protected either in large quantities of grain or in locations warm enough to prevent complete cooling of the center of the grain mass.

The LESSER GRAIN BORER is somewhat smaller than the grain weevil, with a cylindrical form and with the head turned under the thorax of the body. It is not normally abundant in this area; but when it becomes established, it may seriously damage grain of a fairly low moisture content. The eggs of this form are deposited in grain particles or attached to the surface of the grain kernels and the larvae feed upon flour particles or damaged kernels, finally boring into the kernels to complete their development. Under favorable conditions, a period of about a month is required for development from the egg to the adult stage.

THE SAW-TOOTHED GRAIN BEETLE is one of the common beetles occurring in various types of cereal products. The adult is a slender brown beetle approximately 1/10 of an inch in length, and with a series of small tooth-like projections on each side of the thorax. The eggs of this insect are deposited in crevices, and the active larvae hatching from these eggs crawl about as they feed.

THE CADELLE is one of our larger, more conspicuous, stored grain pests. The adult is a black beetle approximately 1/3 of an inch long, and the larvae are nearly 3/4 of an inch long when grown, are dirty-white in color except for the black head and have dark spots immediately behind the head, and two brown spines on the posterior end of the body. This insect is usually found in ground cereal products, but it can attack whole grain kernels, normally confining itself to the embryo or softer portion of the kernel. This insect requires a full year for complete development.

THE INDIAN MEAL MOTH has a wing expanse of from 1/2 to 3/4 of an inch and is reddish brown in color except for a light band across the upper third of the wings when at rest. The eggs of this moth are deposited singly or in groups on food materials, and the larvae upon hatching feed upon a wide variety of cereal food materials. The larvae spin a silken cocoon in which transformation to the adult stage takes place. They feed on broken seed material and on the germ of sound kernels. Their presence is indicated by the webbing or silk which they spin wherever they feed.

THE MEDITERRANEAN FLOUR MOTH has a slightly greater wing spread than the above described form. The fore wings, which alone show when the moth is at rest, are pale gray, with transverse wavy black markings. The larval forms spin extensive silken webs in their feeding activities, frequently matting together flour and meal products. They prefer flour and meal for feeding purposes, but also attack other cereal products including whole grain kernels.

MEAL WORMS are rarely injurious in this area, but are occasionally observed. The adults are large dark brown or black beetles approximately 1/2 of an inch in length, and the larval stages when full grown are conspicuous yellow colored worms.

GRAIN MITES are microscopic, soft bodied creatures closely related to spiders. They are one of the most difficult pests to eliminate after they once become established in stored grains. Their small size, rapidity of multiplication, and peculiar habits fit them well for life in stored food products. Under certain conditions, these mites pass into a resistant resting stage under which they can stand various types of unfavorable conditions.

CLEANING PROCESSES can remove most of the adult insects, but may not remove kernels containing the immature stages of certain insects. Aeration by moving the grain from one bin to another provides a means of reducing both the moisture content and the temperature of the grain, and thus can render the grain supply unfavorable for insect development.

FUMIGATION is an effective means of eliminating infestations of stored grain insect pests.

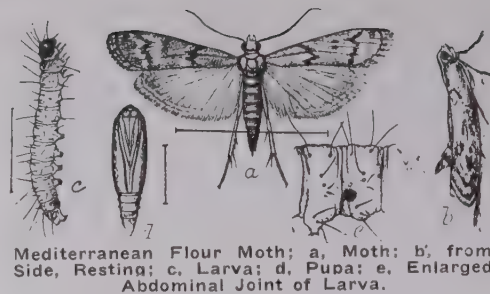
The temperature of the material to be treated is a very important item, and in general fumigation temperatures between 75 degrees and 90 degrees will be most satisfactory. It is usually not wise to attempt fumigation under temperatures below 60 or 65 degrees, for at those low temperatures a higher concentration of fumigant and a longer exposure will be necessary.

Washington, D. C.—The Commodity Credit Corp. has announced that thru Apr. 1, redemptions of loan wheat had totaled 12,320,000 bus., an increase of 2,943,000 bus. for the week.

Chicago, Ill.—The Millers National Federation has changed the dates of its 39th annual convention from May 7-9 to May 14-16. Headquarters will be the Edgewater Beach Hotel.

Chicago, Ill.—The Midwest Section of the American Ass'n of Cereal Chemists held a meeting here Mar. 3. Principal speaker was Dr. L. B. Jensen, on "The Food Technologist as an Expert Witness in Civil Jury Trials."

Export subsidy rates on flour, except to the Philippines, have been raised 15c a bbl. in the first change since Feb. 6. New flour export indemnity rates of the marketing section of the A.A.A. are: 60c a bbl. from Pacific Coast ports to the Philippines; \$1.05 a bbl. from all ports to the Americas.



Mediterranean Flour Moth; a, Moth; b, larva from Side; Resting; c, Larva; d, Pupa; e, Enlarged Abdominal Joint of Larva.

Driveway Observations

By TRAVELER

INSTEAD of burning or hauling away the cobs from its corn shelling operations, the Northern Indiana Cooperative Co. at Mentone, Ind., grinds them into poultry litter.

Grinding cobs requires special equipment if it is to be done economically. This company's plant is located in the heart of Indiana's poultry belt and where commercial possibilities in cob litter were good enough to warrant investment in a separate building and the necessary heavy machinery.

NEW HYBRID CORN numbers feature characteristics like loose shucks, even, low height of ears from the ground, and clean snapping of ear from stalk. Corn breeders are keeping the machine age in mind and trying to help the mechanical corn pickers.

MODERN EQUIPMENT around the elevator, like electric moisture testers, heavy scales and large scale decks, improved truck lifts, etc., attract trade. Farmers like to have their grain tested and handled "the modern way." When you install new equipment advertise the fact.

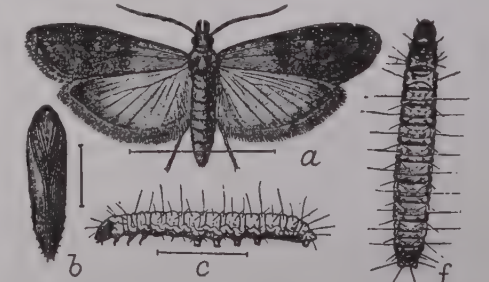
AN AMMETER connected with the motor that runs the leg, and properly marked to show the amount of current used when the leg is running at full capacity, would be a handy indicator to insure efficient operation in times of rush without danger of over-doing crowding of facilities.

Similarly, an ammeter connected with a hammer mill motor enables the operator to feed the mill at full capacity, yet not waste current in overloading it.

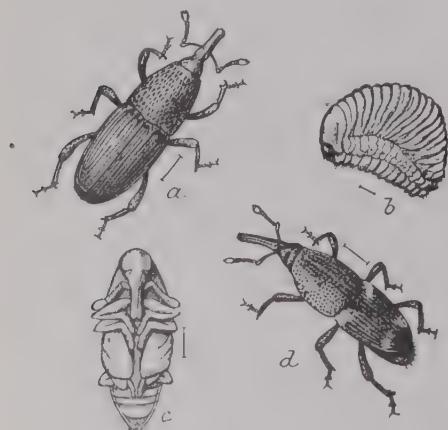
TWO FEED MIXERS constitute an advantage to a grinding and mixing plant, because they permit continuous operation of grinding and mixing. Mixed material can be bagged from one mixer while the other mixer works on a new batch, and vice versa.

UNTIL SUCH TIME as a satisfactory means is found for making older elevator basements waterproof, a sump pump is an effective way to keep the basement dry. It should be motor operated and the sump should be kept clean.

CHARCOAL and cod liver oil are materials that readily burst into flame in a few hours when mixed together purposely or accidentally. It is a good idea to keep these two poultry feeding elements well separated and avoid spilling.



Indian Meal Moth; a, Moth; b, Chrysalis; c, Caterpillar; d, e, f, Dorsal View.



Granary Weevil; a, adult; b, larva; c, pupa; d, rice weevil.

Grain and Feed Trade News

Reports of new elevators, feed mills, improvements; changes in firms; fires, casualties, accidents and deaths are solicited.

CALIFORNIA

Long Beach, Cal.—The Spencer-Kellogg Co. has let the contract to the James Stewart Corp. for a bulk handling annex to its flaxseed and copra pressing plant. The annex will be of steel with sheet iron siding. Screw conveyors with electric power will be installed to convey the seed to the pressing plant. The plant will be operated by electric power.

Sacramento, Cal.—A. B. 1086, warehousemen: Weevil Control Bills: Amended to 3c a ton, instead of the original 5c. Members of the California Hay, Grain & Feed Dealers Ass'n are urged to signify their wishes on passage of this legislation for improved control of weevil. To offset this bill, one will be introduced to "repeal" all present weevil control under the Grain Warehouse Act. Reason: Do not wish to continue having to do a 20% job because of lack of funds. Farmers, warehousemen, grain dealers and exporters of barley are concerned. Examine for mutual interests, possible results, permanent costs, etc., then act.—I. J. Stromnes, sec'y, California Hay, Grain & Feed Dealers Ass'n.

Sacramento, Cal.—Feed Law Amendments, S. B. 728, had a hearing before the Senate Agriculture Com'te on Apr. 1. The bill is being amended satisfactory to members of the California Hay, Grain & Feed Dealers Ass'n com'te.—A. B. 882: Amended to provide a straight \$3 original license and renewal fee, has passed the Assembly and is in the Senate Agr. Com'te.—A. B. 1147: requiring a "quality index" with other label information for simple concentrates, is still on file in Assembly Agr. Com'te. This bill is opposed as no known agency is yet prepared to adequately furnish such guarantees on a day to day practical basis.—S. B. 622 and A. B. 2469, Little Wage and Hour Law, impose new and unjustifiable burdens on California industries. The first named bill establishes higher minimum wages than are provided in the Federal law, thereby placing California employers at a disadvantage and, in some instances, conceivably driving industry out of the state.—I. J. Stromnes, sec'y, California Hay, Grain & Feed Dealers Ass'n.

Sacramento, Cal.—Special reduced rates and round-trip rail convention fares and arrangements to the 17th annual convention of the California Hay, Grain & Feed Dealers Ass'n at San Francisco on April 24, 25 and 26, have been announced. Members of the organization will be furnished with identification certificates for themselves and families upon presentation and surrender of which ticket agents of principal lines in California will sell round-trip tickets to San Francisco, and the certificates which members will later receive, entitling them to reduced fares, will show on the reverse side the convention fares that will apply to San Francisco from principal rail points in California. Tickets at these convention fares are in three classes: First class; intermediate class and coach class. Tickets will be on sale from Apr. 19 to Apr. 26 inclusive and the return limit will be May 6, 1941. Stopovers are allowed; if a longer return limit is desired, it must be arranged for with railroad agents.—I. J. Stromnes, sec'y, California Hay, Grain & Feed Dealers Ass'n.

CANADA

Winnipeg, Man.—George W. P. Heffelfinger was the guest of honor at a farewell dinner tendered him recently at the Manitoba Club by his friends and associates in the grain trade here, prior to his leaving for his future home in Minneapolis.

Sarnia, Ont.—A \$500,000 temporary addition to the Sarnia elevator with a grain storage capacity of some 3,000,000 bus. will be built on the north side of the present building. The addition will nearly double the capacity of the present facilities. It will be of frame construction.

Fort William, Ont.—N. M. Paterson & Co. have made provision for space to erect another distress grain storage building of the same size as the one now under construction adjacent to the company's elevator in Westfort. The company has been granted consent by the city council to construct a permanent concrete tunnel under Queen St., leading to the present storage.

Victoria, B. C.—The Gillespie Grain Co., which leases the Ogden Point grain elevator on a 50 per cent of the profits of operation basis, has begun negotiations to purchase the house for \$175,000. The plant was built by the government some time ago following agitation to have an elevator here to load grain on boats taking part cargoes on Puget Sound. However, since the Ogden Point plant was built, it has been a very small shipper, and was leased to the Gillespie interests of Edmonton, Alta., several years ago.

Vancouver, B. C.—The plant of the Atlas Flour Mills, Ltd., ceased operations the last week of March. David C. Richardson, superintendent, stated he had no information as to future plans of the purchasers, who bot it from the Alberta Pacific Grain Co., and who are understood to represent an "ass'n" of big Canadian milling companies. K. C. Allen, general manager of the Alberta Pacific, said the actual transfer would not take place until June 1. In the meantime the plant is being kept open for disposal of stocks.

Fort William, Ont.—All elevator employees at the head of the lakes Apr. 1 received a "cost of living" bonus, comprising \$8 a month for the monthly employees and 3½ cents an hour for hourly employees, the bonus retroactive to Jan. 1. Monthly employees, regardless of salary, received \$24 in the bonus paid Apr. 1. Based on an increase of about seven per cent in the rise of cost of foodstuffs, the bonus amounts of \$8 monthly and 3½ cents an hour, were set by the federal department of labor. The bonus is paid only on the increased cost of necessities and not of luxury goods. It was authorized last fall by federal order-in-council.

COLORADO

Collbran, Colo.—The Plateau Valley flour mill was destroyed by fire recently. A. W. Zimmerman was operator of the plant, Mrs. Etta G. Thompson a co-owner of the property with Mr. Zimmerman.

Denver, Colo.—House Bill 1181 introduced Jan. 15, is an Act to protect the distribution and marketing of merchandise and commodities from local barriers and discriminations and declaring the policy of the state in relation thereto.

Cheyenne Wells, Colo.—We will add about 20,000 bus. storage to our elevator here this summer by moving an elevator from the next town east, which has not been in operation for several years. This will make us 70,000 bus. of storage when completed. As yet no contract has been let for the moving.—H. L. Sackett, mgr., The Summitt Grain Co.

ILLINOIS

Lebanon, Ill.—The Pfeffer Milling Co., sustained a small loss at its plant from recent high winds.

Dakota, Ill.—H. A. Hillmer Co. has installed a No. 2 Kelly Duplex Vertical Feed Mixer, ton capacity, with motor drive.

Jerseyville, Ill.—Fire, apparently originating from an electric fumigating machine, did some damage to the Lee N. Manning warehouse on Mar. 26.

Kankakee, Ill.—The Sollitt Grain & Feed Co. has been organized; 10,000 shares, n.p.v. Incorporators: F. F. Thompson, L. F. Thompson, J. N. Murray.

Godfrey, Ill.—George Adair has resigned as manager of the Godfrey Elvtr. Co. James F. Gaul will succeed him, taking over his new duties Apr. 15.

Cerro Gordo, Ill.—The elevator owned by Mrs. H. V. Henneberry was slightly damaged by a fire in the cupola on Mar. 22.

Malden, Ill.—Fred Hamer, who has been manager of the Malden Elvtr. & Lumber Co. for a number of years, recently resigned and Arthur Laughlin has taken his place.

Cullom, Ill.—Arthur Sloma of Oak Harbor, O., has taken up his duties as manager of the Cullom Grain Co. elevator, succeeding John H. Hines, of Pontiac. L. C. Schmunk of Oak Harbor is owner of the elevator.

Olney, Ill.—Willard H. "Pat" Laughton died recently after a prolonged illness. He was the organizer of the Richland Feed & Supply Co., which business he conducted. For years he was agent of the Purina Feed Co.—W. B. C.

Sidell, Ill.—Burglars entered the office of the Sidell Grain Co. the night of Mar. 23, opened the safe doors and attempted to batter open the cash box of the safe, but were unsuccessful. Fred F. Current is manager of the elevator.

Chatsworth, Ill.—C. M. Patterson, of Indiana, has purchased the feed mill owned by John Meister, of Fairbury, Ill., and operated under lease for the past three years, by E. J. Schlitz. Carl Melton of Hoopston will manage the plant.

Lovington, Ill.—A stockholders meeting will be held by the Lovington Grain Co. and Farmers Elevator on Apr. 12 for the purpose of deciding whether or not to sell the elevator. The company has shown a loss for the past three years.

Morris, Ill.—The Farmers Square Deal Grain Co. entertained a large number of its friends at a matinee performance of "Chad Hanna" in the Morris theatre recently. Later, the corporation's annual business meeting was held in the company's office.

East St. Louis, Ill.—The 5,000,000 bu. concrete elevator being built at the Fox Terminal of the Alton & Southern Rlwy. by H. G. Onstad will take in grain next week. This house is much like the Cargill Elevator at Albany, N. Y., and will be operated by Cargill, Inc.

Spring Valley, Ill.—The Continental Grain Co. is negotiating to exercise its option for the purchase of an Illinois River site here which may be used as a grain elevator location in the future, it is reported. A 20-acre tract in the river bottoms from Peter Barto, Spring Valley owner, is said to be the property in the deal. The company has held an option on this property for some time, it is said.

Springfield, Ill.—S. B. 208 is a bill to amend the landlord's lien law introduced jointly by Senators Nicholas L. Hubbard, Mt. Pulaski, and Everett R. Peters, St. Joseph, both officers of Illinois Grain Dealers Ass'n. It provides that if the landlord is to enforce his lien that he must either notify the elevator prior to final settlement or file a notice of his lien with the clerk of the circuit court of the county in which the crops are grown.

Springfield, Ill.—State Wage and Hour Bills H. B. 123 and H. B. 124 have been withdrawn and a revised state Wage and Hour Bill that had been prepared by the Illinois State Federation of Labor, submitted. This new measure has several exceptions, including farmers and eliminates proposed Wage Boards. As a concession to small merchants amendments will be favored to exempt employers of five or six persons from the provisions of the act. The 30c an hour minimum wage is retained in the new bill, but the provisions for an 8-hour day and 5-day week are stricken in favor of flat 40-hour week with no restriction on the number of hours worked in a day. This 30c would be raised to 40c in 1945. Exempted from the wage and hour standard would be: executives and professional men, domestics, seamen, fishermen, workers subject to the railway labor act, agricultural laborers, switchboard operators in exchanges of less than 500 subscribers, outside salesmen and persons employed by their parents. The Illinois

Grain Dealers Ass'n will continue to oppose any state wage and hours measure so long as its provisions include any of the operations of the country elevator, the vast majority of which engage in retailing, and unless the small retail establishment is exempt from exemption of the employees handling only grain would be of any value.—W. E. Culbertson, sec'y, Illinois Grain Dealers Ass'n, Delevan, Ill.

Crystal Lake, Ill.—Both objectors and supporters of the local factory of the National Grain Yeast Co. made up a crowd of 175 that appeared before the city council recently, when grievances against that company, as operator of the local plant sought by some to be declared a public nuisance, were aired. It was decided to put the matter to public vote at the election. Results of the vote will determine future action by the city. Residents in the north section of the city object to the odor arising from the large lagoons where effluent from the yeast factory is emptied. At the lagoons, there is a sewage treatment plant.

CHICAGO NOTES

John Milton Wenner, formerly with Paul H. Davis & Co., has become associated with Daniel F. Rice & Co.

The rate of interest for advances on Bs/L for April has been set at 5% per annum by the Board of Trade.

Membership certificates in the Board of Trade advanced in price \$25, with transfers at \$450. Posted offers for memberships were at \$450.

Lowell Hoyt & Co. on and after Apr. 11 will occupy offices in the Board of Trade Building. The old Board of Trade Building was the company's home for nearly 30 years.

James C. Lesar has been appointed as an economist and statistician for the Board of Trade. Mr. Lesar attended the University of Illinois recently and has been in the employ of the Commodity Exchange Administration.

John J. McKeone, a member of the Chicago Board of Zoning Appeals, and former ass't chief deputy clerk of the Chicago Municipal Court, was appointed chief state grain inspector by Gov. Dwight Green, April 8, succeeding T. J. Kiley.

Plans are being completed for an exceptionally interesting and instructive meeting at the Board of Trade May 12 and 13 when the Illinois Grain Dealers Ass'n will hold its 48th annual convention. No grain man will wish to miss it.

The following have been admitted to membership in the Board of Trade: Albert P. Hinckley, New York, N. Y.; John R. Lindsay, Greenville, S. C.; Charles F. Goldner, Chicago; Louis J. Colehower, Wenona, Ill.; E. Morgenstern, Salina, Kan.

Philip R. O'Brien, president of the Board of Trade, and Robert H. Gardner, director of the exchange, have been named as directors on the board of the National Grain Trade Council. The Board of Trade recently joined the national organization, from which it withdrew several years ago.

Elmer C. Kimball, found guilty by the Ass't Sec'y of Agriculture Grover B. Hill at Washington, D. C., of having taken the opposite side of trades which he executed on the Chicago Board of Trade for customers without the knowledge or consent of the customers, was suspended from exchange trading until further notice and his registration as futures commission merchant and floor broker was revoked by the ass't sec'y. Mr. Kimball was expelled by the Chicago Board of Trade on Feb. 23 for violation of the rules.

Final examinations in the class on "Grain and Its Marketing," conducted by the Grain Exchange Institute, were held Apr. 3 upon completion of the 14 weeks of instruction. This is the third class to take the examinations in the course prepared by Dr. Dean W. Malott, A. B., M. A. B., chancellor of Kansas University, from material prepared by 71 experts in the grain trade. The institute was the outgrowth of an educational campaign conducted by the Ass'n of Grain Commission Merchants, of which A. W. Mansfield is president. Robert H. Gardner is president of the institute.

INDIANA

Paoli, Ind.—The Paoli Milling Co. will close its plant soon until the new crop due to the exhaustion of wheat supplies.

Kokomo, Ind.—Marvin L. Miller, 43, manager of the Morrison-Thompson Grain Co., died Mar. 20 after a year's illness of paralysis.

Williamsport, Ind.—Miller & Seeger, who recently bot the local elevator, are installing a new scale and making extensive repairs on the elevator office.

Indianapolis, Ind.—The Board of Trade has now, as for many years past, Chicago grain market quotations posted on the exchange floor every business day.

Dunreith, Ind.—William Kiser, 39, operator of the Dunreith Grain Co., died at his home Mar. 15. He had been in failing health for a year and seriously ill for six weeks.

Martinsville, Ind.—The Martinsville Milling Co. has been incorporated; to operate grain elevators and flour manufacturing mills; 300 shares of \$100 par value; incorporators, Clifton F., Pearl B., W. Frederick Schnaiter, Sr., and Warren M. Schnaiter.

English, Ind.—The English Flour Mill was damaged by fire Mar. 21 that started from a short in a 1-h.p. electric motor on the second floor of the building. The company has just installed a wheat cleaning machine which will take out 90 to 95 per cent of wild onions and garlic.—W. B. C.

Malden (Valparaiso R.F.D. 7), Ind.—The Malden Elevator has installed a hammer mill and a large dump to feed the same, putting it in first class condition to serve the trade. Power is furnished by a large diesel engine which drives the entire plant. The millwright work was done by the Pearson Mill & Elvtr. Mach. Co.

Chandler, Ind.—The Farmers Feed Mill, owned by Ray A. McElhinney, which for several years was owned and operated by the late S. W. Perigo, has been selected as the authorized agent for the Gehl Mills, of Mt. Vernon, Ill. The sales manager for this district is H. N. Arnold, who has been associated with the Gehl Mills for years.—W. B. C.

Goshen, Ind.—Merrill Doriot, who recently purchased the Farmers Coal & Feed Co., is making extensive improvements in the mill which include the installation of an up-to-date grain dump; a new high speed feed mixer, and seed cleaners. A complete line of seeds will be carried, fertilizer will be handled and grain will be bought and sold.

Indianapolis, Ind.—A two-day grain grading school was held here Mar. 24 and 25 in the Board of Trade building. It was one of four schools scheduled over the state by Purdue University in co-operation with the Indiana Grain Dealers Ass'n and the federal grain supervision service. Instruction on the latest grain grading standards for soybeans, wheat, corn and oats was given along with detection of "sick wheat" and related subjects.

The Unvarnished Truth About Grain Fumigation

An Informative Series of Questions and Answers

No. 5 What is generally considered a "satisfactory" kill of insects?

A high percentage kill—seldom 100%, but usually 90% or upwards—which sharply checks further heating or insect damage. With this degree of kill later observation shows that surviving adults gradually die off and there seems to be little reinfestation to indicate any less complete kill of immature stages.

Anyone wishing more detailed information on this or other subjects related to grain fumigation is invited to write us. Questioners will not be subjected to sales arguments, but will receive honest answers within the limits of our information.

THE **Weevil-Cide** CO.
THE DEPENDABLE GRAIN FUMIGANT
1110 HICKORY STREET
KANSAS CITY, MO.

IOWA

Harlan, Ia.—The Harlan Rendering Co. is building a 22,000-bu. steel tank.—C. R. M.

Elkhart, Ia.—P. W. McClung of the McClung Grain Co. was recently elected mayor.—A. G. T.

Melbourne, Ia.—The Johnson Grain Co. is planning to build a 20,000-bu. annex to the elevator.

Luther, Ia.—C. H. Raney, manager of the Farmers Elvtr. Co., was recently elected a councilman.—A. G. T.

Sibley, Ia.—A new grain cleaner has been installed at the Willey & Greig elevator. The T. E. Ibberson Co. did the work.

Rodman, Ia.—Andrew Truelson of Havelock is being transferred here to manage the Quaker Oats Co. plant.—Art Torkelson.

Mt. Union, Ia.—Henry Dralle of Fort Dodge is new manager of the Farmers Elevator, filling the vacancy left by Howard Oberman, resigned.

Plainfield, Ia.—High winds on Mar. 16 did considerable damage at the J. Roach & Sons elevator now under construction by the T. E. Ibberson Co.

Beaman, Ia.—At the annual meeting held recently Homer Neff was elected president and Geo. Hurlbutt, sec'y of the Beaman Elvtr. Co.—A. G. T.

Cedar Rapids, Ia.—The Quaker Oats Co. has granted a universal raise of 5c an hour to its 800 local employees, Arthur Poe, general manager, recently announced.

Indianola, Ia.—F. C. Sigler, 69, passed away from a heart attack. Funeral services were held April 2. He at one time operated a grain business here.—Art Torkelson.

Thompson, Ia.—The Farmers Elvtr. Co. has completed razing its old elevator and the building of the new 45,000-bu. plant will start at once. Wm. Weigert is the manager.—Art Torkelson.

Montour, Ia.—Don Jacobson, who has been helping his Dad at the Montour Grain Co. plant, left for Juneau, Wis., where he has accepted a position in a creamery, effective Apr. 1.—Art Torkelson.

Sioux City, Ia.—Frank Pilley & Sons, Inc., sponsored a dinner meeting for feed dealers in the Mayfair Hotel Mar. 28. Gordon W. Johnson was the main speaker, discussing a new poultry feed high in vitamins.

Grinnell, Ia.—The DeKalb Agricultural Ass'n is building another structure, to be used in drying hybrid seed corn, just west of its warehouse at Third Ave. and Main St.

Cornelia (Clarion p.o.), Ia.—Dale Peterson is rebuilding his elevator which was destroyed by fire last January. An office building has been erected and a new scale installed. Mr. Peterson operates as the Cornelia Grain & Lumber Co.

Council Bluffs, Ia.—The receivership of the old Georgie Porgie Co. has been ordered fully closed, the receiver discharged and his bond exonerated, by District Judge Charles Roe. The final report showed the distribution of funds as directed on Mar. 3.

Mt. Vernon, Ia.—Charles Bachman and his son, Ralph have opened their new feed store, Bachman's Feed Service, in the Barnes building. A new one-ton feed mixer has been installed along with a feed grinder and corn sheller. A general line of feeds will be handled.

Shelby, Ia.—Dow, Hale & Lerigo, Inc., have been making some rapid strides in the feed and grain business recently. They have under construction a 30 x 75 ft. feed warehouse and office combined and will install a new Fairbanks 40 x 10 ft. Truck Scale. Upon completion of this job the elevator will be repaired. Present plans are to remove the old wooden siding and replace it with corrugated iron. Last month a new Kelly Duplex 1-ton Feed Mixer was installed. F. E. McClenahan is manager.

Shenandoah, Ia.—The Shenandoah Grain & Coal Co. will be known as the Danner Elevator, effective Apr. 1, and will be operated by the Danner Grain & Milling Co. of St. Joseph, Mo. W. R. Stanley, who has operated the elevator for the past several months, will be retained as manager and Lloyd Stokes will continue as an employee. The new company will continue to buy grain and handle coal and in addition will stock Danner feeds for distribution in this territory. Extensive repairs are being made and erection of additional storage facilities is planned. A new driveway will be built, and a new dump and faster handling equipment installed.

Spencer, Ia.—Wilson Coal & Grain Co. is installing a new Soweigh 20-ton Motor Truck Scale with wood deck 36x10 ft., and equipped with new style grain beam.

Marcus, Ia.—The Farmers Elevator will be overhauled and improvements made which include repairs on the pits and spout and the installation of new head drives and two motors. The elevator will be closed for 10 days beginning Apr. 20, while the work is in progress.

Sioux City, Ia.—Construction of a 521,000-bu. storage addition to the International Milling Co. plant has been started by the Jones-Hettelsater Const. Co. to whom contract was awarded the latter part of March. The new unit will consist of 20 tanks, each 20 ft. 6 inches in diameter. Work will be completed in time for the new crop movement.

Council Bluffs, Ia.—The Scoular-Bishop Grain Co. will construct seven concrete tanks, with a storage capacity of 116,000 bus. of grain, and increase the total storage capacity of the plant to more than 330,000 bus. Arthur C. Christensen, superintendent, said the new space will be used for storage of government corn. The contract was let to the Ryan Const. Co.

Missouri Valley, Ia.—Francis Day and Jos. Guinan of the Loveland Elvtr. Co. have associated themselves with F. E. Wilkinson, nationally known chemist, in opening a new plant here to manufacture plastics from waste farm materials. A laboratory has been erected east of the local elevator to conduct additional experiments.—Art Torkelson with Lamson Bros. & Co.

Des Moines, Ia.—A bill, H. F. 34, that authorizes assessors to value sealed corn at 30% of actual value during the years 1941 and 1942 as a basis for tax payments the following years, has passed both houses of the Iowa legislature and has been signed by the governor. As general property in Iowa is valued at 60% for taxation, the bill affords one half exemption on sealed corn.

Des Moines, Ia.—Western Grain & Feed Ass'n is bending every effort to gain support of both the House and Senate to bring about early passage of House File 352, without amendment, which is also aimed at the itinerant trucker. There has been an attempt made to adulterate this bill by several amendments which would decrease tremendously its effectiveness, Graddon Swanson, sec'y of the Ass'n, points out. The Ass'n urges all grain men to contact their legislators urging immediate passage of the measure in its original form without amendments.

KANSAS

Beulah, Kan.—The Farmers Union Elevator has been closed until harvest.

Solomon, Kan.—The Security Flour Mills is building new concrete storage tanks.

Larned, Kan.—Three new rolls have been installed in the feed grinder at the Farmers Elevator.

Lorraine, Kan.—Lorraine Grain, Fuel & Stock Co. will build a detached frame warehouse for storing feed.

Topeka, Kan.—A. E. Langworthy, who served as a Kansas feed and seed inspector for 28 years, died Mar. 31.

Wichita, Kan.—A certificate of necessity for the construction of storage space for wheat has been granted to the Kansas Storage Co.

Kendall, Kan.—Lester Graves, formerly employed at the Syracuse (Kan.) Elevator, is new manager of the local elevator of the Gano Grain Corp.

Sterling, Kan.—Construction of the 40x44 ft. elevator for the Farmers Co-operative Union is under way, Chalmers & Borton having the contract.

Monmouth, Kan.—The Farmers Union Elevator has been closed until harvest. Odell Davidson has been manager of the elevator for several months.

Talmage, Kan.—The Farmers Co-operative Grain & Livestock Ass'n is building additional storage bins. The additional capacity will be 35,000 bus.

Salina, Kan.—E. L. Rickel of the Rickel Grain Co. recently sold his residence here to Elmer W. Reed, general manager of the Shellabarger Mill & Elvtr. Co., and will move his family to Kansas City, where his business has been located since the beginning of the crop year.

Clay Center, Kan.—Frank Connor, operator of a local brokerage office and well known to the grain trade, died recently of pneumonia, after a few days' illness.

Great Bend, Kan.—The Walnut Creek Milling Co.'s mill is operating 16 hours daily while catching up on orders that accumulated while new equipment was being installed.

Moundridge, Kan.—The Moundridge Milling Co. is installing a dry-pipe automatic sprinkler system in its mill, warehouse and elevator, N. W. Krehbiel, manager, announced.

Haven, Kan.—E. O. Lamon, who has been manager of the Farmers Co-op. Grain Co. for the past several years, recently resigned and has been succeeded by F. U. Holmes of Castleton.

Cunningham, Kan.—Oliver Baber, Sr., manager of the local Bowersock Elevator, passed away Mar. 19. He had been ill only a few hours. Mr. Baber had been manager of the elevator for many years.

Mullenville, Kan.—Homer VanDyke, for the last two years manager of the Security Elevator here, has resigned and will move soon to Talquah, Okla., near where he owns a farm. Carl Pitts, of Sublette, is the new manager.

Salina, Kan.—Frank E. Miller, manager of the Salina office of B. C. Christopher & Co., Kansas City, has been elected to membership in the Board of Trade on transfer from Ralph Vestal, who was killed in an automobile wreck recently.

Larned, Kan.—The Pawnee County Co-op. Ass'n has awarded to Chalmers & Borton the contract for the construction of its 130,000-bu. elevator here. The unit will consist of six large tanks about 105 ft. in height and five smaller interstice bins. Work will start Apr. 10.—P. J. P.

Yates Center, Kan.—We purchased the business known as the Yates Center Mill & Elevator, a 11,000-bu. elevator and feed mill, and are installing a new feed mixer with motor drive, new electric truck dump, and an automatic scale. We expect to have this place in operation on May 1.—Arnold Brunner, Brunner Flour & Feed Mill, Cedar Point, Kan.

Lewis, Kan.—Timely discovery of a blaze in the office of the Farmers Elevator the morning of Mar. 15, and quick action on the part of the local fire department and volunteers, saved the elevator from a disastrous fire. A box of peat moss placed too near an oil burning stove in the elevator office, became ignited. Smoke issuing from the door and windows of the elevator attracted the attention of a passerby. Damage was small.

Topeka, Kan.—The Gypsy Trucker Bill passed the senate last week on final vote as amended by the house, and now needs only the governor's signature and publication in the state paper to become law. The house amendments provided for a \$10 license and a \$250 bond for itinerants. Farmers hauling their own products or hauling commodities for their own consumption are exempt, also private carriers operating from an established place of business.

Wichita, Kan.—The Kansas Grain, Feed & Seed Dealers Ass'n officers anticipate one of the best conventions of its history when the members assemble for the 44th annual convention to be held at the Broadview Hotel May 16 and 17. The Wichita Board of Trade's convention com'te is making great plans for the entertainment of the visitors, and the Wichita Chamber of Commerce and hotel management are co-operating to make the meeting one long to be remembered. National legislation and policies formed in Washington as well as European developments will come in for serious consideration and discussion at the business sessions, because of their important bearing upon American agriculture. No grain man will wish to miss this meeting.—J. F. Moyer, sec'y.

Announcement

Our offices are now located at 2080 Board of Trade Bldg., No. 141 West Jackson Blvd., Chicago. And we take this opportunity to express — in a small way — our appreciation for contacts with so many friends — both old and new. The old Board of Trade Building was our home for nearly thirty years. And moving at this time into the new — indicates we're still optimists — ready to meet the challenge of coming years. Customers and other friends always welcome at new address.

LOWELL, HOIT & CO.

Irving, Kan.—The Irving Elvtr. Co. is building a feed room in which a feed mixer and hammer mill are being installed. The cupola is being raised and an electric motor and head drive are being installed. The elevator is owned and operated by Olin Deibert.

Tipton, Kan.—The Hake Grain Co. is building a 60,000-bu. storage elevator north of its present building. When completed, it will give the company a total storage capacity of 90,000 bus. The new elevator will be crib type, constructed of wood, with corrugated iron covering, and will be 38x57 ft., and 35 ft. high.

KENTUCKY

Mayfield, Ky.—Wayne Andrus and A. M. Harris have opened the Quality Feed Co. store.

Lexington, Ky.—J. B. Lykens has purchased a midget mill here, a 25-bbl. plant, and plans operation.

Sonora, Ky.—G. Albert Boyd, 64, died recently at his home. For many years Mr. Boyd managed flour and grain mills at Eagle Mills and later the Nolin Milling Co. here.—W. B. C.

Princeton, Ky.—Kercheval Bros., of Hanson, Ky., have leased the Princeton Roller Mills from Mrs. J. R. Kevil and son, Robert, with option to purchase. C. E. Kercheval has assumed management of the business. The new firm will be known as the Princeton Mills.

LOUISIANA

Crowley, La.—The Louisiana State Rice Mill sustained a heavy loss by fire that badly damaged the Peoples mill Mar. 14. A dust explosion in the conveyor on the fourth floor of the mill is believed to have started the fire, which was confined, principally, to that floor. Damage to clean rice resulted mainly from the water that ran down and under the sacks stored on the main floor.

MICHIGAN

Detroit, Mich.—Fred Zinn, of A. K. Zinn & Co., grain and feed wholesalers, has changed his offices to the local plant from Battle Creek, Mich. He also will direct the branch in Jackson.

USE CLELAND

Cleaners



For Most Efficient Cleaning, Largest Capacity, Handles All Grain or Seed, Lowest Price Quality Construction—Built in 6 Sizes.

Write
CLELAND MFG. CO.
Minneapolis, Minnesota
Established 1824

Davison, Mich.—The Davison-Berry Co. reported its property damaged by recent high winds.

Elkton, Mich.—Wallace & Morley Co. sustained a small property loss on Mar. 17 as the result of high winds.

Pigeon, Mich.—The Pigeon Elvtr. Co. is enlarging its storage capacity. The elevator is owned by Wallace & Morley.

Pigeon, Mich.—The Co-operative Elvtr. & Milling Ass'n reported a small loss sustained at its plant from recent high winds.

Battle Creek, Mich.—Don Zinn will direct the local plant of A. K. Zinn & Co., succeeding Fred Zinn who is now located at Detroit.

Bentley (Standish p. o.), Mich.—William B. Baum, manager of the Consolidated Grain Corp. elevator for several years, has taken over the elevator and is operating it under his own responsibility.

Monroe, Mich.—The Amendt Milling Co. has awarded the contract for designing and equipping its new mill to General Mill Equipment Co. The project will include a flour mill of approximately 500 bbls. daily capacity and a corn meal plant with a daily capacity of about 300 bbls.

Chesaning, Mich.—Neil Morman, 45, manager of the Michigan Bean Co. elevator, sustained a double fracture of his right arm Mar. 27 in an accident at the plant. While helping to operate a coal unloader, the arm was caught in the carrier and wedged against a post in the machine.

Turner, Mich.—The Standish Milling Co., John Mitrzyk, proprietor, has taken over the local plant of the Consolidated Grain Corp., and will continue to operate it under the same plan as the Standish Milling Co. is now operated. The same high grade feeds will be sold and good elevator service given.

Uby, Mich.—In a suit filed by Elmer A. Beam-er, Michigan's commissioner of agriculture, in the Huron County circuit court Mar. 27, the Block elevator was charged with having a shortage of farm produce supposed to be on hand covered by storage receipts. Joseph Block, owner of the elevator, was named defendant in the suit. The commissioner has asked that he be appointed receiver for all assets of the Block elevator and asks permission to liquidate the elevator storehouse for benefit of the people holding storage receipts. Mr. Block has been enjoined from disposing of his assets by circuit judge of Bay County. The suit alleges the shortage of approximately 205,000 lbs. of beans which were stored with Block. Named as co-defendants with Block were Louis Tinkham and Hugo Hammerslag, both of Grand Rapids. The two had instituted an action of replevin in circuit court, tying up the farm produce now in the elevator, claiming to own it. They were ordered not to proceed with the replevin suit.

Rhodes, Mich.—The Consolidated Grain Corp. elevator has been leased to Fred LeFrenier, the local operator. The grain firm has started voluntary dissolution proceedings in circuit court at Bay City.

MINNESOTA

Nicollet, Minn.—A new feed mixer is being installed at the Nicollet Farmers Exchange Co. elevator.

Caledonia, Minn.—The Jahn brothers have installed a corn cutter and feed mixer at the Schlitz Elevator.

Austin, Minn.—The Hunting Elvtr. Co. has moved its offices to new quarters in the First National Bank Building.

Leroy, Minn.—The feed mill owned by T. Eastwood and operated by S. M. Vatna was sold to G. H. Lomen of Northfield.

Winnebago, Minn.—The Frank Bros. Grain & Feed Co. has completed the remodeling of its elevator and installation of a large new mixer.

Cook, Minn.—The Arrowhead Seed Growers Co-operative and the Cook Planning Board are sponsoring a drive to establish a flax elevator here.

Thief River Falls, Minn.—The Peterson Grain & Seed Co.'s new elevator, being built by the T. E. Ibberson Co., is about 50 per cent completed.

Askov, Minn.—The Askov Co-operative Ass'n has purchased Ed Olson's feed store, more commonly known as A. Henriksen's feed store, and equipment.

Kragnes (Moorhead p. o.), Minn.—The Farmers Elvtr. Co. is building a 100,000-bu. addition to its elevator. Contract for construction was let to the J. H. Fisch Co.

Sanborn, Minn.—A model M Crippen Cleaner has been installed by the Farmers Co-op. Elvtr. Co. G. A. Burdick, factory representative, furnished the machine.—Bruce Edgar, mgr.

Waseca, Minn.—Improvements totaling \$5,000 will be made to the Steel-Electric Elevator, including replacement of a screw conveyor for loading out, with a 100-ft. belt, and a new gallery.

St. Cloud, Minn.—The Empire Linseed Elvtr. Co. has been incorporated. Capital stock, \$35,000. For storage and warehousing of grains, etc. Incorporators, Alex N. Prom, S. W. Jenssch, J. J. Mallowney, all of Minneapolis.

St. Paul, Minn.—House Bill 1081 introduced Mar. 11 is an Act relating to the sale of grain and seed screenings for animal food. It eliminates the following clause: "provided further, that nothing in this section shall prohibit the sale of screenings in closely woven and securely tied sacks to purchasers who feed same to sheep which are kept and fed within enclosures."

Garvin, Minn.—O. H. Schlottfeldt of Viborg, S. D., is the new manager of the Farmers Elvtr. Co. here, succeeding Joe Rolstad, resigned.

Tintah, Minn.—The Kent-Doran Elvtr. Co. has let a contract for the designing and rebuilding of its elevator, recently destroyed by fire, to the J. H. Fisch Co. Floyd I. Hammond is the company's local agent; M. S. Smith, Breckenridge, is manager.

St. Paul, Minn.—Senate Bill 880 was introduced Mar. 7: Resale of grain.—Provides for license for resale of grain.—Senate Bill 879 also introduced Mar. 7: Storage of grain.—Empowers the Railroad & Warehouse Commission to make rates for handling and storage of grain to conform with the practices of the U. S. Dept. of Agriculture.

High winds caused considerable property damage thruout Minnesota on Mar. 15, among the grain firms reporting losses being the Kellogg Commission Co., Clements; Farmers Elvtr. Co., Cleveland; W. R. Leslie, Elbow Lake; C. O. Scow, Hawley; Nassau Farmers Elvtr. Co., Nas-sau; Waubun Elvtr. Co., Waubun; A. L. Hanson Co., Wheatville.

Duluth, Minn.—A fleet of bulk freighters set sail from Lake Erie last week and from last reports had arrived at the Soo locks without difficulty. Ice breakers have been steadily at work for some time to break through the ice covered St. Mary's river and were successful after a time. This was the earliest arrival at the lock since April, 1901.

Ice breakers have moved into Whitefish Bay the eastern area of Lake Superior and are now at work. The progress is being closely watched and when the ice field there can be navigated the lake shipping season will swing into general action. It is predicted the season will be the busiest and largest in the history of the iron ore movement on the Great Lakes.

Cheered by these reports efforts will soon be under way to start ship movement here. Ice still covers the harbor but it is fast rotting and claimed will not offer much obstruction to boat movement. A boat was chartered last week to load a cargo of wheat for early shipment east at 4½¢ top rate to date. General insurance rates go into effect Apr. 15 and it is the general understanding that steamers will not start moving before that time.—F. G. C.

MINNEAPOLIS LETTER

The Farmers Elvtr. Ass'n of Minnesota will hold its 1942 convention at the Hotel Radisson on Feb. 17, 18 and 19, 1942.

The Atkinson Milling Co. will start construction this month of a bulk flour storage building, 100x90 ft. in base dimensions, and six stories high. Concrete bins will provide storage capacity for approximately 25,000 bbls. of flour. The Jones-Hettelsater Const. Co. has the contract.

Fire damaged corn stored in the basement of the Harbor Elevator on Mar. 31. The corn, about 50,000 bus., has lain in the basement where it fell when upper stories of the structure collapsed in January. It is part of the government owned grain stored in the structure at that time. The elevator was undergoing repairs when the fire started.

The Amber Milling Co has been placed in voluntary receivership, John F. Diefenbach being appointed receiver of the firm. Because of litigation between its two former grain connections, the action was taken to protect the company and its customers. The company is said to be perfectly solvent and has more than enough grain in its elevator to take care of all contracts.

MISSOURI

Kennett, Mo.—The Kennett Grain & Seed Co. is constructing an elevator.

Malden, Mo.—We are doubling our seed warehouse capacity and cleaners.—Malden Grain Co.

Pattonsburg, Mo.—The Farmers Co-operative warehouse, filled with hay was destroyed by fire Mar. 7.—P. J. P.

Palmyra, Mo.—Floyd E. Robinson, manager of the Farmers Elvtr. & Exchange Co., has filed as a candidate for mayor.—P. J. P.

Franklin, Mo.—Construction of an alfalfa dehydrating plant on a site near here has been begun by the W. J. Small Co. The plant will be a single unit, requiring the production of nearly 1,000 acres of alfalfa at first cutting, and upwards of 1,500 acres at later cuttings. The site of the plant is adjacent to the Katy tracks, just north of Tom Devine's elevator. The building will be 56x66 ft. in size.—P. J. P.

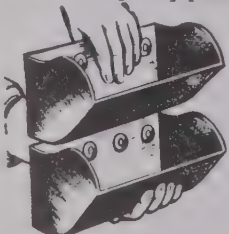
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SCREW CONVEYORS HAMMOND PRODUCTS ELEVATOR BUCKETS
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Richmond, Mo.—The Hamacher Grain & Produce Co. has been purchased by Newton Clark Hamacher, who will continue to operate the business as in the past.—P. J. P.

Salem, Mo.—Earl and Francis Allison have purchased from the Lebanon Produce Co. the local mill which they have operated since the latter firm bot it from J. W. Hughes, former operator, in 1939. The mill will be operated as the Allison Bros. Milling Co.

Olean, Mo.—The Olean Milling Co. is building a fireproof steel and concrete warehouse and storage room adjacent to its present plant. The new annex will cover the ground formerly covered by the Missouri Pacific R. R. stockyards and will be 75x55 ft. in dimensions.

Jefferson City, Mo.—House Bill 191 introduced Feb. 27: Grain warehouse act—Repealing Article 1, Chapt. 109, Revised Statutes, 1939, relating to inspection of grain, and Article 2, Chapt. 141, relating to warehouses for grain; enacting the Grain Warehouse Act in lieu thereof.

Hardin, Mo.—Ray-Carroll County Grain Growers, Inc., is now building an elevator at this place to replace the structure destroyed by fire last summer. The new elevator will be of 22,000 bu. cap. crib type, with complete grain handling equipment. Albert Rank is in charge of construction.

Wright City, Mo.—More than 300 patrons and friends of the Farmers Elvtr. Co. held a mass meeting the night of Mar. 25, honoring Herman Koopman, retiring manager. Edward Goss, president of the company, presented him with a gift as a token of appreciation for his years' of efficient service.

Hannibal, Mo.—The Farmers Elvtr. & Exchange Co., occupying the Eagle Mills building, will remodel and equip the structure into a modern grain elevator. All present equipment in the building will be taken out and replaced with latest type grain elevating machinery, and ample provision will be made for storage. The company now operates elevators at Palmyra and Frankford.

KANSAS CITY LETTER

The Kansas City distributing point of the Schreiber Milling & Grain Co., St. Joseph, has been moved from North Kansas City to Liberty. Ira S. Schreiber is manager of the local warehouse.

Margin requirements on wheat future transactions were increased at a special meeting of the directors of the Kansas City Board of Trade Mar. 29. The new schedule: On hedging and spreading trades, 3c per bushel on wheat and corn, except trades in the same grain in the Kansas City market, 1c per bushel; all other trades, 8c per bushel on wheat and 5c on corn.

The annual statistical report for the year 1940 of the Board of Trade of Kansas City, Mo., has been released. The compilation of useful information and statistics has been compactly condensed and assembled, with a neat gray manila cover and back. Walter R. Scott, sec'y of the Exchange, is to be complimented on the book, a brochure that will prove a handy reference book for all its recipients.

F. A. Theis, president of Simonds-Shields-Theis Grain Co., told the board members of the Trans-Missouri Shippers Board at a recent meeting that the addition of 28,055,000 bus. of storage space in the Southwest since the bumper crop of 1931 will be ample to handle the coming wheat crop movement, and that he felt assured there would be no cause for alarm even tho much space is occupied by loan wheat and will not be available for new storage.

Formal completion of all plans for the readjustment of the capital of the Flour Mills of America, Inc., was announced by E. P. Mitchell, president and general manager, and the opening of business Apr. 1 operating under the new capital structure. Incorporation of the reorganized company under the Delaware laws, with its subsidiary units to operate as trade names was effected Mar. 28. With Mr. Mitchell, officers of the company include William R. Duerr, L. C. Chase, K. P. Aitken and T. A. O'Sullivan as vice presidents. A. J. Spaulding is sec'y and treasurer; Harry G. Stevenson and C. A. Defaugh, assistant secretaries and H. W. Campbell and A. L. Christman, assistant treasurers. Mr. O'Sullivan is in charge of the grain department with Mr. Stevenson as assistant. Thornton Cooke, trustee of the large milling company, recently filed a petition seeking an appeal in the payment of fees and expenses to the law firm of Bowersock, Fizzel & Rhodes.

Earl Hogan of Henry Lichtig & Co. has recovered from the effects of a recent minor operation which kept him from his duties in the mill-feed futures pit for several days.

MONTANA

Laurel, Mont.—B. B. Hageman will rebuild the grain elevator on West Main St.

Glasgow, Mont.—The International Elvtr. Co. has installed modern machinery to clean and treat seed grain.

Lewiston, Mont.—The Farmers Union Grain Terminal Ass'n of St. Paul has let the contract to the Ryan Construction Co. for a 500,000-bu. concrete elevator.

Shelby, Mont.—The Farmers Union Grain Terminal Ass'n of St. Paul has let the contract for a 700,000-bu. concrete elevator to the Ryan Construction Co.

NEBRASKA

Jacinto (Dix p.o.), Neb.—John Clausen, Jr., will build a storage annex to his elevator.

Hastings, Neb.—The Nebraska Consolidated Mills Co. sustained a recent electrical damage loss.

Omaha, Neb.—The Cereal Chemists Ass'n will hold its annual convention here May 19 to 23.

Dix, Neb.—Gene Binning is building a 15,000-bu. storage annex. The W. H. Cromer Const. Co. has the contract.

Malvern, Neb.—Ben Breeding has purchased the Kilmartin Feed & Implement Co. business from A. P. Kilmartin.

Belgrade, Neb.—Carl Beard of the Beard Grain Co., Lewellen, Neb., recently purchased the local T. B. Hord Grain Co. elevator.

Homer, Neb.—Harry Jensen was elected manager of the Omadi Grain Co. elevator at the company's recent annual meeting.

Valentine, Neb.—William Vanderhelden has sold the Valentine Feed Mill to Sam Richardson and son, William, of Wood Lake. The new owners will take possession May 1.

Elba, Neb.—Henry Graus, who has been employed at the Farmers Grain & Supply Co. for the last two years, recently resigned his position. William Suntych has succeeded him at the elevator.

Naponee, Neb.—Roy Bashford of Hildreth and Walter Post of Naponee have acquired the Robert Ott interest in the Naponee Elvtr. Co. Mr. Bashford also purchased the Ott residence and will take over management of the elevator about Apr. 15.

Giltner, Neb.—The Farmers Elvtr. Co. has purchased the west elevator and equipment from William McNeil, former owner, of Kansas City. The new owners will use the elevator for storage purposes.

Western, Neb.—Frank Baand, manager of the Barstow Grain Elevator, was stricken with a heart attack Mar. 23 while at his work. His condition is improved but he is still confined to his home. Clifford Muir is assisting at the elevator during his absence.

Omaha, Neb.—Senator Hugh A. Butler, former president of the Grain & Feed Dealers National Ass'n, was one of the nine members of the Senate who voted against the \$7,000,000,000 appropriation under the Lease-Lend Act. The appropriation carried in the senate by a vote of 67 to 9.

Elkhorn, Neb.—The Blackburn Milling Co. has been granted a judgment of \$11,700 against the state department of roads and irrigation for damages to the company's property here as the result of forthcoming work on Highway 31. The road right of way is to be changed and a viaduct built near the mill, which the company charges will impede entrance to the mill.

Oshkosh, Neb.—Carl Beard, owner of elevators here, at Lewellen and Belgrade, operating under the name of the Carl Beard Grain Co., has endeared himself in the hearts of youngsters of this community by donation of a swimming pool. Last year he did the same thing for the youth of Lewellen when that town, also, was unable financially to provide the town's children with the pool. The cost of the improvement is estimated at \$13,636, of which amount Mr. Beard will pay the city's share, \$6,740, a W. P. A. project financing the balance. The town agreed to provide a lifeguard and operate the pool free.

NEW ENGLAND

Boston, Mass.—The A. S. MacDonald Commission Co. is celebrating its 25th anniversary in business. The company opened its doors to the public on Apr. 3, 1916, and since that time has enjoyed periods of steady growth, interspersed with the same problems that has beset the rest of the business world. In a letter to its friends and customers, in a spirit of reflection is written "The world was then at war. It is now . . . What a period it has been—war inflation—past war deflation—Boom—Depression—Depression and New Deal! And we are still here—not so young, but still vigorous—not boasting . . . only grateful. . . ." That's telling a story, concisely and to the point. Congratulations Messrs. A. S. and Eugene MacDonald.

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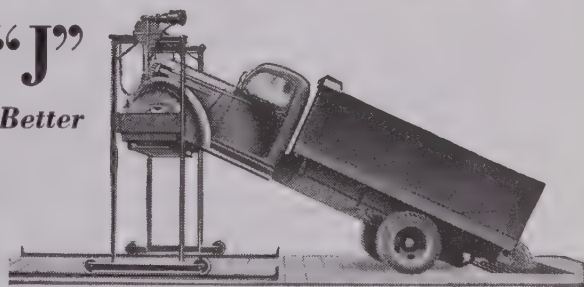
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NEW YORK

Granville, N. Y.—A flour warehouse owned by the Race Milling Co. was damaged by an exposure fire on Mar. 11.

Central Square, N. Y.—A feed warehouse owned by George M. Preston was totally destroyed by fire on Mar. 20.

Bainbridge, N. Y.—A fire in the feed mill of C. H. Eldred & Co., Inc., did some small amount of damage on Mar. 15. The blaze started over a bin on the second floor from an unknown cause.

Buffalo, N. Y.—The G. L. F. has let contract for its million bushel reinforced concrete elevator adjoining its present feed manufacturing plant to the James Stewart Corp. The new work house will be erected on caissons supported by bed rock; in fact the new plant will have two head houses, one at each end of the storage bins. Four large legs will be installed in the main head house and one leg in the other head house. The storage section will be made up of thirty-six cylindrical bins, with interstice bins. Power will be supplied by twenty electric motors giving 865 h.p. Specifications call for the installation of the Zeleny Thermometer Systems in all storage space.

NORTH DAKOTA

Ypsilanti, N. D.—Hans Callsen, for 18 years president of the Ypsilanti Elvtr. Co., died Mar. 17 after a short illness.

Bathgate, N. D.—Fire recently damaged the engine room of the Bathgate Grain Co. elevator of which Harry Evert is manager.

Hoving (Gwinner p. o.), N. D.—The Hoving Grain Co. is building an elevator to replace the one that burned last Armistice Day. The new structure will have a capacity of 45,000 bus.

High winds caused considerable damage thru-out North Dakota on Mar. 15, among grain firms reporting losses sustained at their plants being the Casselton Elvtr. Co., Casselton; Clifford Farmers Co-op. Elvtr. Co., Clifford; H. E. Sorley, Cummings; Hatton Farmers Elvtr. Co., Hatton; Midwest Feed & Produce Co., Hillsboro; Benson Quinn Co., Jud; Farmers Grain & Trading Co., Milnor; Plaza Equity Elvtr. Co., Plaza; Hubert Grain Co., Powell; Farmers Co-op. Elvtr. Co., Prosper; Sharon Farmers Elvtr. Co., Sharon.

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Scales — Sample Pans

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Williston, N. D.—The Farmers Elvtr. Co. awarded contract to build a 50,000-bu. annex to its present elevator to the J. H. Fisch Co. The new annex will be placed on the south side of its present plant and will be equipped with an electrically driven leg. The grain will be carried from one plant to the other thru 7-inch well casing pipe. The new addition will have nine bins, and the outside of the building will be covered with galvanized iron. There will be a mechanical manlift installed. C. A. Johnson is manager of the elevator.

New England, N. D.—The Farmers Equity Elvtr. Co. awarded the contract to the J. H. Fisch Co. to move its west elevator over to east plant, and build a new driveway to it connecting same with the driveway on the present east plant. The present office building will be moved west to the new driveway and remodeled into a warehouse with the floor on a level with the driveway floor. There will be a new three room office built with a reinforced concrete tile lined vault at one end of the main office. The new office will have hot air heat. Henning Strom is manager of the elevator.

OHIO

Mt. Healthy, O.—The Groff Milling Co. reported a small amount of damage incurred at its plant recently from high winds.

Oakwood, O.—The Oakwood Grain Co. elevator, owned by Henry Hill and his elevator at Hartsburg (Oakwood p. o.), have been sold to Floyd and C. A. Heagle. Mr. Heagle has taken charge of the elevators.

Liberty Center, O.—Waldo Hatcher, who has been employed by the Liberty Center Grain & Stock Co. for the last eight years, has taken over the duties of manager of the elevator, succeeding Rush Croninger, who retired Apr. 1.

Sabina, O.—The W. B. Rapp & Son elevator and coal yard has been sold to George Dewine and Howard Hamma, of Yellow Springs. The new owners have taken possession of the business and are extensively remodeling the buildings.

Reading, O.—Contracts for construction of the feed mill of the Southern States Co-operative Ass'n were let to the Ferro Concrete Const. Co. The site for the units that will make up the feed mill enterprise is along the Pennsylvania Railroad, west of here.

OKLAHOMA

Buffalo, Okla. The Beeman-Berryman elevator has been sold to the Feuquay Grain Co. of Enid.

Hobart, Okla.—Farmers Co-operative Ass'n has purchased a new seed cleaner and it is located in a brick warehouse.

Okeene, Okla.—The Okeene Milling Co. is building a battery of concrete tanks. Chalmers & Borton Co. has the contract.

Blackwell, Okla.—The Deer Creek Mill & Elvtr. Co. awarded contract for construction of its 150,000-bu. grain storage elevator to the D. C. Bass Const. Co. Horner & Wyatt designed the plans.

Enid, Okla.—The W. B. Johnston Grain Co. has let a contract for construction of a 200,000-bu. grain storage addition to its elevator. Horner & Wyatt designed the new unit and is supervising construction.

Dacoma, Okla.—The Farmers Elvtr. & Mill Co. let the contract for its 100,000-bu. concrete elevator to the A. F. Roberts Const. Co. Work is already under way on the structure, which will be completed in time for the coming harvest. Latest type machinery and equipment will be installed to handle 5,000 bus. of grain per hour. Guss Heady is manager of the elevator. The company's old building has been taken down.

Cushing, Okla.—Gene Hancock of the Hancock Feed Co. has let a contract to Paul Schoeffler for construction of a modern, electrically equipped 25,000-bu. grain elevator, to be erected west of the former Bartlett Produce Co. on the Santa Fe right-of-way. The new elevator will be equipped with up-to-date grain elevating facilities, an overhead dump, gravity feed and automatic scale. It will be the only wheat elevator in a wide area. The structure will be 36x36 ft. and 90 ft. high, of wood frame with galvanized coverings and is expected to be completed for the coming harvest.

Douglas, Okla.—The Farmers Co-operative Elvtr. Co. is building a concrete elevator. Tillotson Construction Co. has the contract.

Wakita, Okla.—The Farmers Co-operative Elvtr. Co. is building a battery of concrete storage tanks. Chalmers & Borton Construction Co. has the contract.

Enid, Okla.—Construction of the 2,000,000-bu. concrete addition to the Union Equity Co-op. Exchange plant will start at once. When completed, the company will have a total local storage capacity of about 7,250,000 bus. of grain. Most of the new unit will be completed in time for the new crop. Chalmers & Borton have the contract.

Clinton, Okla.—The Farmers Union Co-operative Ass'n has approved plans and a loan has been secured for construction of a 100,000-bu. storage elevator to be constructed here. C. H. Spears, manager of the ass'n's elevator, stated. If the project is approved by the stockholders, work will start at once. The proposed elevator would be 130 ft. high, 48x50 ft. in base dimensions. It would be built of concrete and steel and include 16 bins.

PACIFIC NORTHWEST

Balder, Wash.—Rosalia Producers, Inc., reported a small loss sustained as a result of recent high winds.

Marcellus (Ritzville p. o.), Wash.—The Marcellus Farmers Elvtr. Co. is building an elevator. Con Eckhardt has the contract.

Puyallup, Wash.—The Farm Service Division of General Mills, Inc., has bot the inventories and equipment of the H. B. Clark Feed Co.

Schiller (American Falls p. o.), Ida.—A Sperry Flour Co. warehouse, 30x100 ft., and filled with three carloads of grain, was destroyed by fire recently.

Woodburn, Ore.—John Shaw, operator of the Woodburn Feed & Supply Co. for the past several years, recently sold out to Frank W. Burlingham of Woodland, Wash.

Seattle, Wash. — Spontaneous combustion started a fire that caused a heavy loss at the Magnolia Milling Co. plant Mar. 25. The mill manufactures chicken feed and fertilizer.

Tacoma, Wash.—The Farm Service Division of General Mills, Inc., Minneapolis, has bot the land, buildings and inventory of the Kenworthy Grain & Milling Co., operating plants at South Tacoma and Centralia, Wash.

Medford, Ore.—Feed dealers of this section have organized locally, naming Oliver Morton as local chairman. R. G. Baxter, a director of the Oregon Feed Dealers Ass'n, and Leon S. Jackson, manager, attended the meeting.

Priest River, Ida.—The Priest River Grain Co. will build a small loading shed onto the north side of its present structure. The walls will be constructed of cement up to the point where galvanized iron will be used, and a cement floor will be put in.

LaCrosse, Wash.—The Farm to Boat Grain Co. is considering taking the agency for selling grain storage bins. There is a great demand for bins of 3,000 bus. to 6,000 bus., and even larger in this territory, preferably of the galvanized and corrugated type.

Grants Pass, Ore.—Feed dealers of southern Oregon met here recently to organize locally, and elected A. Pruitt as local chairman, to effect complete organization of the group. The group is affiliated with the Oregon Feed Dealers Ass'n, representatives of which were present.

Yakima, Wash.—The Valley Flour Mills, Inc., with its equipment and stock was destroyed by fire Mar. 28. J. F. Altmeyer is president and manager of the plant. The mill will be repaired. About 2,000 bus. of wheat was included in the loss. The feed mill nearby escaped the flames.

Milton, Ore.—The Milton Elvtr. Co. has been incorporated, with a capital stock of \$35,000 divided into 350 shares of \$100 par value. Sam Ingle and six other Milton men are the incorporators. A 150,000-bu. grain elevator is being constructed by the company, contract for building let to the Hogenson Const. Co.

Kennewick, Wash.—A dragline is deepening the channel at the port district, the dirt being used to build up the landing upon which the proposed grain warehouse will be constructed ultimately. A dock will be built on each side of the channel. The work will be completed in time to handle the bulk wheat shipments from this area this fall.

Mondovi, Wis.—The Mondovi Co-operative Equity Ass'n is installing a feed mill in connection with its grain warehouse near the depot. It will be in charge of Theodore Swan.

Portland, Ore.—Effective as of Apr. 1, rules of the Portland Merchants Exchange have been changed on bulk wheat. Bulk wheat, in lieu of sacked at 4c instead of 3c; resacking 12c instead of 10c; turned, bad order, etc., 6c vs. 8c; bad order sacks, 5c instead of 4c.

Alderwood Manor, Wash.—Officials of the Magnolia Milling Co. have arranged to make the Alderwood Grain Co. the main plant of their company until permanent quarters are again established. The Magnolia Milling Co.'s Seattle plant was destroyed by fire Mar. 25. The Alderwood plant is a branch of the Magnolia Milling Co., and its buildings have been enlarged recently. The firm specializes in poultry feeds.

Lewiston, Ida.—Grain warehouse and elevator managers held a meeting here Mar. 16 at which liquidation of government loan wheat and storage facilities of the Pacific Northwest were principal topics under discussion. C. C. Corey, Portland, manager of the C. C. C.; A. E. Sutton, Walla Walla, manager, A. E. Scott, Spokane, branch manager, and A. R. Shumway, Milton, Ore., president of the Pacific Grain Growers Ass'n, appeared on the program as speakers.

Pomeroy, Wash.—The Centennial Flouring Mills Co. has obtained a 40-year lease on land east of the Central Ferry bridge as a site for a grain elevator and warehouses. Negotiations were carried on by L. F. Hopkins, manager for the company. While no building plans have as yet been announced it is understood Centennial is negotiating with the Camas Prairie Railroad Co., which operates the road between Riparia and Lewiston for sidetrack facilities.—F. K. H.

Tacoma, Wash.—The Archer-Daniels-Midland Co., Minneapolis, has leased the 600,000-bu. public elevator at the port, effective May 1. Upon expiration of the firm's one-year lease, a renewal option provides for two additional one-year periods. The price set for the rental is based on a somewhat flexible scale, with \$20,000 as the minimum for the year's lease. Pacific coast operations of the firm are centered at Portland, Ore., with a branch located at Seattle.—F. K. H.

Albany, Ore.—An Albany district of the Oregon Feed Dealers Ass'n was formed Mar. 25, with 29 feed dealers of this community present. Gordon Ryals was elected district governor and will take his seat at the board meeting held in connection with the annual convention. Dealers from Lebanon, Corvallis, Harrisburg, Shedd, Albany and other nearby towns were in attendance at the meeting. Ass'n directors assisting in the formation of the district were Gordon Burlington, vice-pres. of the Ass'n; Hugh Stoll, treas.; R. G. Baxter and Leon S. Jackson, manager.

SOUTH DAKOTA

Hoven, S. D.—High winds caused a small amount of damage to the Charles Mack plant.

Onaka, S. D.—H. R. Dufflo is planning to enlarge his office so that he will have a display room.

Eakin (Onida p.o.), S. D.—The Blunt Grain Co. reported a small property loss sustained from recent high winds.

Altamont, S. D.—The H. R. Tall Elevator has been sold to W. D. Price. The business will be known as the Price Grain Co.

Raymond, S. D.—Wes Hubbard has resigned as manager of the Pacific Grain Co. elevator. He will be succeeded by Ernest Polon of Orient, S. D.

Manchester, S. D.—Edward D. Curley, for many years manager of the Manchester grain elevator until retiring six years ago, died Mar. 4.

Ipswich, S. D.—The Osborne-McMillan Elvtr. Co., managed by Howard Samp, has installed a feed mixer and is now equipped for custom feed mixing.

Brookings, S. D.—Adolph A. Moritz, for the last 12 years manager of the grain and elevator departments of George P. Sexauer & Son, has resigned to accept a position as an executive officer of a Chicago manufacturing firm. His successor will be John A. Johnson of Minneapolis, who has been associated with the Hallett & Carey Co., a grain firm, in recent years.

Edgemont, S. D.—The Black Hills Elvtr. Co. has been incorporated; capital stock, \$10,000. Incorporators are C. M. Tucker and Mr. and Mrs. J. M. Tucker.

Watertown, S. D.—George A. Hurd, Sturim, N. D., has been named manager of the Watertown Co-operative Elevator, succeeding E. C. McNulty. Mr. Hurd has been in the grain and elevator business for many years.

SOUTHEAST

Dover, Del.—House Bill 301 was introduced Feb. 28. Tax exemptions—To amend chapter 6 of the revised code of Delaware, 1935, relating to state revenue, providing for the exemption of dealers in grain and commercial feeds, fruits and vegetables, poultry and coal.

Four Oaks, N. C.—The Oaks Milling Corp. has been organized, with the following officers: R. C. Canaday, pres.; J. R. Durham, vice-pres.; Bert Lassiter, sec'y-treas. The corporation is sponsoring a modern flour mill for this vicinity. The organization was incorporated for \$50,000. With the collection of funds, work on the building will be begun at once. The mill, which will be located at the intersection of highway 301 and Sawmill St., is expected to be ready for operation around July 1.

Jackson, Miss.—Farm groups in Copiah, Madison and Holmes Counties have shown an interest in joining the Hinds County group that is signing up soybean acreage in order to assure establishment of a soybean oil crushing plant here this fall. H. R. Bryant, Frontz Bassfield and C. L. Buford were named a com'te of the Farmers' club of Edwards to try to get 1,600 acres of soybeans pledged in Hinds County, to assure the plant. Over a thousand acres have been signed. The Mississippi Cotton Oil Co. has agreed to remodel its plant here to handle soybean crushing if enough acreage is pledged.

Wilmington, Del.—A new fireproof grain elevator and feed mill will be constructed at the marine terminal. The Red Comb Mills, Inc., has let the contract to McKenzie-Hague Co. for a feed mill equipped with modern machinery and an elevator of 100,000 bus. capacity. The mill building will be 60x89 ft., five stories high. The warehouse, of concrete, with a brick veneer, will be 60x180 ft. The office building will be 30x60 ft., one story high. The shop and boiler room will be 20x80 ft. On each side of the elevator will be a receiving track running into a track shed. The concrete elevator will contain three legs of 6,000 bus. capacity. The five-story mill will be equipped with hammer mills, mixers, pellet machine, corn mill and a corn cracker. The warehouse adjoining the mill can load bagged feed into cars on a track each side of the warehouse, so as to load either bagged or bulk ingredients. Three car pullers will be installed to expedite the spotting of cars.

TENNESSEE

Phillippy, Tenn.—O. W. Randolph Co., Toledo, O., is building an alfalfa dehydrating mill here, to be in operation about June 1. Farmers nearby have pledged 1,000 acres of alfalfa.

TEXAS

Fort Worth, Tex.—Burrus Mill & Elevator is installing a new 40-ton 50-ft. Howe Motor Truck Scale and Dump.

Fort Worth, Tex.—Universal Mills is installing a 40-ton 45-ft. Howe Scale to handle and dump the long trailer trucks now in use.

WISCONSIN

Merrill, Wis.—Lincoln Mills has installed a Kelly Duplex Vertical Feed Mixer, ton capacity, with motor drive.

Milwaukee, Wis.—The rate of interest for the month of April, 1941, has been determined by the finance com'te of the Milwaukee Grain & Stock Exchange at 5 per cent.

Superior, Wis.—General contract for the 3,000,-000-bu. Farmers Union Grain Terminal Ass'n elevator to be built here was let to McKenzie-Hague Co. Construction work was begun Mar. 26.

Fisk, Wis.—Emil G. Jaeger, 57, operator of an elevator and coal dealer, died Mar. 24 of a heart ailment. In 1938 Mr. Jaeger ranked second in the entire state in the volume of grain handled.

Reedsville, Wis.—August Maertz, 85, pioneer feed mill operator, died March 28. Mr. Maertz owned and operated a grist mill here and when it was destroyed by fire, he built a flour mill which still stands.—H.C.B.

Clintonville, Wis.—S. A. LaViolette, proprietor of the Clintonville Flour & Feed Co., has completely equipped his mill to clean and treat seed wheat, oats, barley, rye and sorghums with the new improved cerasan.

Menomonee Falls, Wis.—William G. Slugg, Jr., 24, operator of a feed store here, died Apr. 1 of injuries received Mar. 31 when his automobile collided with a truck at Highway 167 and County Trunk J in Washington County.

Weyauwega, Wis.—George Moody, 56, operator of the Weyauwega Milling Co. for about 20 years, died Mar. 23 at his home in Laredo, Tex. Mr. Moody moved to Texas about six months ago when his health failed.—H.C.B.

New London, Wis.—F. J. LaMarche, operator of the New London Flour & Feed store for 28 years until four years ago when he sold it to George Schlegel, has again taken over the store. A son, Basil LaMarche, is operating the business for his father.—H.C.B.

Nekoosa, Wis.—The Beppler Roller Mills was destroyed by fire the night of Mar. 28 along with its machinery, equipment and stock. A dust explosion is believed to have caused the fire. The building was practically an entire loss with only partial insurance. Robert Beppler was owner and manager.

LaCrosse, Wis.—The LaCrosse Feed & Seed Co. has purchased the City Mills from the estate of the late Ed Parmeter, at the same time negotiating for lease of the building from the A. G. Nelson estate. The price was slightly under \$4,000 which was the appraised value of the property plus market value of grain and stock on hand.

Unredeemed Wheat to Be Pooled May 21

The Washington, D. C., office of the Commodity Credit Corp. has announced unredeemed stocks of wheat will not be pooled until May 21, due to heavy receipts of repayments on wheat in store.

Ordinarily, auditing by the corporation, and clearing with the federal reserve banks, would be completed in 10 days and redeemed stocks released and unredeemed stocks pooled. This year the job will require 20 days.

Nevertheless, wheat producers must mail their repayments by Apr. 30, maturity date for their loans, if they wish to redeem their wheat.

Ottawa, Ont.—Canadian mills ground 45,-612,479 bus. of wheat into 10,103,930 bbls. of flour during the 7 months ending February, 1941, compared with 52,042,809 bus. of wheat into 11,472,318 bbls. flour during the like period a year earlier, reports the Dominion Bureau of Statistics.

Great Britain's stores of grain have resulted in new records of insect infestations. Forms of insect life of wide spread occurrence, which have not previously been recorded in these stores, are *Eurostus hilleri* (Reit.), *Tinea insectella* F. (misella Zell.), and *T. ditella* Pierce & Metc.

STRATTON GRAIN CO.

MILWAUKEE, WIS.
CHICAGO, ILL. SPRINGFIELD, O. ST. JOSEPH, MO. NEW YORK, N. Y.
MILL FEEDS — FEED PRODUCTS — BY-PRODUCTS
Consignments and Future Orders Solicited

Supply Trade

Kansas City, Mo.—I. D. Russell Co., manufacturers of poultry biologics, has put into service a new laboratory, covering half of the second floor of its building.

Minneapolis, Minn.—The perpetual calendar with the name of the recipient engraved in gold letters is so beautifully molded in plastic that it will be kept right on the desk and never be permitted to collect dust on some forgotten shelf.

Building contracts for the thirty-seven states east of the Rockies for the first half of March were up 110% compared with like period in 1940, and at the highest level for any March since 1928. Residential awards, incidentally, were up 42%.—F. W. Dodge Co.

Toledo, O.—The Toledo Scale Co. has ready for mailing a large folder completely describing its Truckmaster and Truckweigh Scales. It shows close-up, detail photographs of the structural construction as well as scale installations. A copy of this brochure may be had by writing the company direct.

Kewanee, Ill.—The Kewanee Machinery & Conveyor Co. is distributing its new catalog on its new Universal Dumpers. This catalog gives many illustrations and complete information on many installations of this dump in all types of grain elevators. Journal readers interested in dumps adaptable to all sizes of trucks and trailers should write the company for a copy.

General Electric Co. is distributing a circular describing CR7006-D40, a full-voltage magnetic starter for induction motors. The switch features a re-settable, positive-acting, temperature over-load relay which protects the motor from injurious overheating under mechanical overloads, or single-phase operation on a poly-phase circuit. Large current-rupturing capacity and ample electrical clearances are safety features. All live parts of the switch are inclosed in a round-cornered case which may be padlocked to prevent unauthorized opening.

The Division of Simplified Practice of the National Bureau of Standards has announced that Simplified Practice Recommendation R87-32, Forms for Concrete Joist Construction Floors, has been reaffirmed without change by the standing committee of the industry. This recommendation, first promulgated in 1929, revised in 1932 and reaffirmed in 1936, covers the dimensions of standard and special forms for concrete joist construction floors. Copies of R87-32 may be obtained from the Superintendent of Documents, Government Printing Office, Washington, D. C., for 5 cents each.

Soybean Development Under Way in Pacific Northwest

The grain department of Centennial Flouring Mills Co. of Spokane, Wash., has purchased the seed stocks and all rights to the Jacklin soybean, developed for and acclimated to the Pacific Northwest by B. H. Jacklin over the last five years.

A. W. Witherspoon, president of the purchasing company, followed purchase with announcement of a three-year program of research to locate areas of the Inland Empire most suited to production of the Jacklin soybean, having in mind adding to fertility of the land, and development of a crop which can be grown upon summer fallow lands.

B. H. Jacklin has been retained in an advisory capacity. He will work with A. J. Haile, superintendent of the company's grain department, in the development program.

Development of Federal Regulation of Futures Trading

(Continued from 299)

has large holdings at a time when he is unable to obtain additional credit, and heavy liquidations may result. Recognizing this, the law of 1936 attempted to make provisions for automatic limitation of excessive speculation. It gives to a body known as the Commodity Exchange Commission, composed of the Secretary of Agriculture, the Secretary of Commerce and the Attorney General, the power to fix absolute limits on the volume of a commodity that a man may buy or sell speculatively for future delivery. So far, this power has been exercised only with respect to grains and cotton. The limitations do not apply to bona fide hedging operations. The limits make it difficult, if not impossible, for large traders to work the deals from which the markets suffered in former years.

While the Commodity Exchange Commission, a body of three cabinet members, shares with the Secretary of Agriculture some of the responsibility in special types of regulatory work, most of the day to day work of trading supervision is carried on by the Commodity Exchange Administration acting for the Secretary of Agriculture.

Subsoil Moisture Necessary

By A. W. ERICKSON

Now and then we may have enough wet weather to produce wheat without any subsoil moisture, but such instances are rare. It is far more common that we have a bad "burn out" over such areas. Twenty-two inches of moisture is by no means enough to insure a crop, but when found at this time of the year it is very important because moisture penetration of the subsoil is a long, slow process. With a little additional moisture such as fell again the other day, the downward movement continues. As the spring rains increase this penetration is still moving downward until the final demands by a fully developed root structure picks it up.

Another advantage of fall moisture is it encourages the roots to develop more fully in the fall and winter. Roots will not enter dry soils. When the moisture goes down during the fall and winter the roots usually go down as fast as the moisture. By spring the job of developing a large deep root structure is already done and the plant goes into the straw making stage early. Often this means short straw or normal straw, which in turn causes the plant to enter the grain making period during the cooler days of summer.—*Cargill Crop Bulletin*.

Grain Mites in Western Canada

The present grain storage conditions in Western Canada are favorable for the increase of grain mites. Much of the grain, threshed and delivered to elevators early in the season, was binned while still retaining a considerable amount of heat.

Part of the 1940 crop has been binned in annexes and temporary bins and in new granaries in which little if any provision was made for sufficient ventilation.

As the outside temperatures dropped, the grain lost heat, and then the warm air in rising came in contact with the roof of the structure and so condensation occurred. The resulting moisture was absorbed by the upper layer of the grain, and the moisture content of the grain at the top of the bin steadily increased. In this way a most favorable environment was set up for the mites, which increased enormously in numbers.

The lack of ventilation in annexes and granaries has contributed largely to the seriousness of the present infestation.—*Searle Grain Co.*

"Pure Seed" Plan Announced

Certified seed of high quality varieties of wheat will be distributed throughout the state by Nebraska elevators and millers. This was the principal item of business discussed at the third annual meeting of the Nebraska Grain Improvement Ass'n in Omaha recently. In his report to the directors and members of the association, Secretary Glenn H. LeDioyt outlined the "pure seed" plan in full in addition to making a complete report of progress for the past year's accomplishments of the grain improvement program.

All officers were returned to their present posts with A. G. Ellick, Omaha, again serving as president, with Glenn H. LeDioyt continuing as secretary and director of field operations. Seven new directors were elected to bring the total to 57.

In making his annual report, Mr. LeDioyt described the novel plan of promoting "pure seed plots" of high quality varieties of certified seed wheat on thousands of Nebraska farms. The purpose of the plan is to make good seed of adapted varieties readily available to the growers, whose present wheat seed is found to be undesirable. The plan calls for the cooperation of elevator operators and millers, who are volunteering to distribute certified seed at less than cost to 4-H clubs and vocational agriculture students. The boys in turn will plant the seed in a "pure seed plot" and agree to keep the seed pure so that it may be used on the home farm the following year.

Elevator operators who plan to sponsor boys with "pure seed plots" will order five bushels of certified seed for each boy. Since Nebred and Cheyenne are the only wheat varieties on the certified list at the present time, they will be the only varieties approved for this plan. Each boy in return is asked to take six bushels of ordinary farm seed to the elevator or mill and exchange it for pure seed. The boy will then plant this wheat as part of his father's field and keep it pure. Complete instructions on the production of high quality wheat by treating for stinking smut, preventing mixtures, etc., will be worked out and given to each boy for use in his project.

The purpose of the "pure seed plot" is to make it possible for farm boys in all wheat producing areas of the state first to try an approved variety on a small scale and at the same time to grow a supply of seed for their home use. The increased seed from the "pure seed plot" will be available for use for the entire wheat acreage on the farm the following year.

Plans were announced for putting the 1942 "100 farmer" tests on a regional basis with farmers' samples collected from several counties in an area being planted in one test. The total number of farmers' samples classified would be the same but the number of tests planted would be reduced. Replicated yield tests would again be planted for the Nebraska College of Agriculture and samples for milling and baking studies would be collected. The master nursery at Lincoln consisting of some 2,500 farmers' samples will again be planted in the fall of 1941 for use at the 1942 field meetings.

S. M. A. Action

Rice has been removed by the Surplus Commodities Administration from the April list of surplus foods available on the food stamp plan.

The Surplus Marketing Administration has purchased an aggregate of 154,285 bbls. of vitamin and mineral enriched flour for export to unoccupied France, for relief.

The Surplus Marketing Administration division of the U.S.D.A. now withholds news of daily purchases of butter, lard, eggs, evaporated milk, cheese and other products on the surplus foods list, to guard against "unwarranted influences on markets."

Grain Carriers

During the first quarter of 1941 the railroads ordered 27,448 freight cars, the largest number in any quarter since 1929. Box cars comprised 13,248.

Mackinaw, Mich.—Two ore carriers, W. F. White and John G. Munson, passed thru the Straits of Mackinac Apr. 2, opening traffic in the channel two weeks earlier than usual.

Grain and grain products were loaded into 36,913 cars during the week ended Mar. 22, compared with 31,441 cars during the same week in 1940, reports the Ass'n of American Railroads.

Lincoln, Neb.—The Union Pacific and the M. & P. railroads have asked the state railway commission for authority to reduce to 18c per cwt. the carload rate on shipments of alfalfa meal from Cozad to Craig, Tekamah, Herman, and Oakland.

Dallas, Tex.—Texas milling interests have protested to the Interstate Commerce Commission the proposed increase in coastwise water flour rates from Gulf ports to North Atlantic ports from 25c to 28c per cwt., scheduled as effective Apr. 7.

Sacramento, Calif.—Railroad Commission decision No. 34,631, Case No. 4,555, vacates order for suspension and investigation and permits reduced rates to become effective on grain, grain products and related articles, from and to San Francisco, Oakland, Alameda and Richmond, reports the California Hay, Grain & Feed Dealers Ass'n.

Class I railroads had 39,353 new freight cars on order Mar. 1, reports the Ass'n of American Railroads, the number including 23,139 box cars. On the same date, 298 new locomotives, of which 132 were steam and 166 were electric and diesel, were on order. New freight cars put in service in the first two months of 1941 totaled 11,587, compared with 11,595 in the same two months of 1940.

Ottawa, Ont.—Freight rates on feed grains moving from the prairies to the Pacific Coast have been reduced 25% from 40c a cwt. to 30c. Mixtures of Nos. 1, 2, or 3 wheat with oats or barley to assure its being used only for feed and not for milling, brings it in the feed classification, and makes good wheat available for feeding purposes, since there is a marked scarcity of the lower grades which have moved heretofore on the low rate.

Washington, D. C.—The Interstate Commerce Commission has ruled that its authority under the Motor Carrier Act extends to drivers' helpers, loaders and garage mechanics as well as drivers. If this ruling is upheld by the courts, these classes of workers will become subject to I.C.C. regulations on hours and be exempt from the wage-hour law. New hearings are to be held by the I.C.C. to determine what regulations and qualifications should be applied to helpers, loaders and mechanics.

The St. Lawrence Seaway

Senator Clyde M. Reed says "Inland waterway transportation is not low cost transportation; it is the highest cost transportation as compared with the highways or the railroads. The only reason for lower charges is the subsidy paid by taxpayers out of the public treasury."

Others, directing comment to the St. Lawrence Seaway which has been authorized as a government project in the name of "defense" altho it is not to be completed until 1945, point out that the proposed 27-foot seaway, would be impossible to navigate by 60% of the aggre-

gate tonnage of grain tramp vessels engaged in overseas Montreal trade; and it could not be navigated by 81% of the cargo vessels or any of the tankers engaged in the inter-coastal domestic trade.

Buffalo Request for Lower Wheat Rate to Seaboard

Expressing fear that Canadian grain normally moving thru Buffalo may be transported over Canadian routes unless U. S. rail rates are reduced, the Buffalo Corn Exchange sent a formal request to the Trunk Lines Association in New York for a summer rail rate reduction of 1.3 cents per bushel, wheat basis, between Buffalo and the seaboard.

The effect of the reduction from the present rates of 7.3 cents per bushel would be to reduce the combined lake-rail shipping rate from Ft. William on Lake Superior to the seaboard thru Buffalo to 10 cents a 100 pounds. The present rate is 12.17 cents and the Canadian rate, thru Georgian Bay ports to Montreal, is 8.5 cents.

A 1.5 cent discrepancy still would exist between Canadian and American transportation cost but the difference would be small enough to permit the consideration of other factors, such as obtaining better convoys from New York, grain men declared. The railroads made the reduction to 10 cents per 100 pounds last year but have shown no intention of doing so this year, it was said.—G. E. T.

Southwest Can Hold Its Wheat Crop

At a meeting of the Trans-Missouri-Kansas Shippers' Board which closed in Kansas City, Mo., Mar. 26, grain dealers anticipated adequate storage space can be found for the 1941 crop of wheat in spite of the vast quantities held in store by the Commodity Credit Corp.

Frank A. Theis, of Simonds-Shields-Theis Grain Co., chairman of the terminal grain com'tee for the shippers board, said the condition is analogous to 1931, when the Southwest harvested its biggest wheat crop. In addition, he said, the Southwest now has 28,055,000 bus. more storage space than it had in 1931, and storage space elsewhere in the country has been increased by at least 100,000,000 bus.

In 1931, 24 visible supply points had elevator capacity for 396,000,000 bus., of which 136,000,000 bus. were vacant on Mar. 31. This year, the total is 477,000,000 bus., with 272,000,000 bus. vacant as of Mar. 15.

Railroad reports indicated that more cars, of greater capacity, are in service. L. M. Betts, manager of the car service division of the Ass'n of American Railroads, Washington, D. C., said that in past years from 3,000 to 4,000 unserviceable cars have been used for temporary wheat storage in the Southwest, but these cars have been repaired this year, and since freight traffic is 25 per cent above last year's figure, the railroads will have to "keep their car supply liquid."

Movement of wheat from the last crop which has been held under government loans will take place in April and May, when the railroads are normally building up their reserves of empty cars in the Southwest, added Betts, and this will complicate the transportation problem. Cars will have to be unloaded promptly.

W. B. Lathrop, from the Commodity Credit Corp.'s Kansas City office, said the C.C.C. is warning every wheat farmer to consult with country and terminal elevators to make arrangements for handling his wheat. The C.C.C. is prepared, he said, to advance farmers 7c a bu. on the year's storage to help handle the crop.

Grain Shipping Books

Railroad Claim Blanks duplicating, three different books, five forms, 8½x11 in., \$2 each book, plus postage.

Shipping Notices duplicating, 50 originals of bond paper, 50 duplicates, press board cover, 5½x8½ inches, weight 8 ozs.; 2 sheets of carbon. Price 70 cts. plus postage.

Shippers' Certificate of Weight duplicating, 75 originals of bond paper, 75 duplicates. Press board hinged back covers, three sheets of carbon, 4½x9¾ inches, weight 11 ozs. Price 95 cts., plus postage.

Grain Shipping Ledger for keeping a complete record of 4,000 carloads. Facing pages are given to each firm to whom you ship and account is indexed. Book contains 80 double pages of ledger paper with 16-page index, size 10½x15¾ inches, well bound with black cloth covers and keratol back and corners. Weight, 4 lbs. Order Form 24. Price, \$3.50, plus postage.

Shippers Record Book is designed to save labor in handling grain shipping accounts and provides for a complete record of each car shipped. Its 80 double pages of ledger paper, size 9¼x12 inches, provide spaces for 2,320 carloads. Wide columns provide for the complete record of all important facts of each shipment. Bound in heavy black cloth with keratol back and corners. Shipping weight, 2½ lbs. Order Form 20. Price \$2.50, plus postage.

Sales, Shipments and Returns. Is designed to save time and prevent errors. The pages are used double; left hand pages are ruled for information regarding "Sales" and "Shipments"; right hand page for "Returns." Column headings provide spaces for complete records of each transaction on one line. Book contains 80 double pages of ledger paper, size 10¾x16 inches, with 8-page index. Spaces for recording 2,200 carloads. Bound in heavy gray canvas with keratol corners. Weight, 3¾ lbs. Order Form 14AA. Price \$3.35, plus postage.

Record of Cars Shipped facilitates keeping a complete record of cars of grain shipped from any station, or to any firm. It has column headings for Date Sold, Date Shipped, Car Number, Initials, To Whom Sold, Destination, Grain, Grade Sold. Their Inspection, Discount, Amount Freight, Our Weight Bushels, Destination Bushels, Over, Short, Price, Amount Freight, Other Charges, Remarks. Book contains 80 double pages of ledger paper, size 9½x12 inches, with spaces for recording 2,320 carloads. Well bound in heavy black pebble cloth with red keratol back and corners. Shipping weight, 2½ lbs. Order Form 385. Price \$2.50, plus postage.

Grain & Feed Journals

CONSOLIDATED

332 South La Salle St., Chicago, Ill.

Field Seeds

New Washington, O.—John Seifert, seedsmen, passed away Mar. 27.

North English, Ia.—F. Plank has installed a Minnesota germinator and a large size hammer mill.

Malvern, Ia.—Ben Breeding has purchased the A. P. Kilmartin seed and implement business.—A.G.T.

St. Joseph, Mo.—Mitchell Bros. has been incorporated as Mitchell Seed Co., with capital stock of \$50,000.

Tilden, Neb.—A new seed and feed department has been added to the cream station of the Hansen Produce Co.

Benton Harbor, Mich.—John N. Schreiber is opening his own seed store as J. N. Schreiber Co. in a newly remodeled building.

Payette, Ida.—The local Chamber of Commerce is making a concerted effort to attract seed interests to put up a seed house here.

Fairfield, Ia.—Arley F. Ford, formerly of Mason City, is the new manager of the Shenandoah Retail Seed & Nursery Store here.

Caldwell, Ida.—Fred Lilly of Lilly Seed Co. passed away from a heart attack Mar. 7, while in a hospital recovering from pneumonia.

Grand Island, Neb.—The Crosman Seed Co., of Rochester, N. Y., has re-opened its Grand Island branch under management of J. D. Bridson.

Marysville, O.—Fire did \$10,000 damage to the two-story corn drying and processing plant of the O. M. Scott & Sons Seed Co., Inc., Mar. 18.

Springfield, Ill.—The state seed laboratory reports that 64 per cent of all samples of seed soybeans sent in show germination of above 80 per cent.

Ligonier, Ind.—Abram N. Wertheimer, senior partner in N. Wertheimer & Sons, passed away Mar. 10, following a long illness. He was 66 years old.

Mount Vernon, Wash.—The Skagit Grain & Seed Co. sponsored an appearance of Cecil Solly Mar. 15 to answer seed questions, as part of its spring seed sales campaign.

Phoenix, Ariz.—House Bill 208, introduced by Armstrong in the Arizona legislature, provides for licensing and regulation of sale and handling of agricultural and vegetable seeds.

Los Angeles, Cal.—W. D. Fraser, seed importer and wholesaler, heads the general committee for the 1941 Foreign Trade Week sponsored by the Los Angeles Chamber of Commerce.

New York, N. Y.—Imports of foreign clover seed dropped 25% in March under February, partly due to sinking of the French steamer "Maroni," reported to be carrying 8,000 sacks of clover seed when it was torpedoed.

Indianapolis, Ind.—Gov. Henry F. Schricker has signed House Bill 481, providing for seizure and destruction of all agricultural seeds carrying more than half of 1 per cent of noxious weed seeds.

Shenandoah, Ia.—Earl E. May Seed Co. has purchased the building occupied by the Nishna Valley Seed Co., and will remodel it into a hybrid seed corn processing plant. Additional storage facilities will be built.

Jacksonville, Fla.—The Southern Seedsmen's Ass'n will hold its annual convention at the George Washington Hotel here June 11, 12 and 13, announces Stuart C. Simpson, president.

Macomb, Ill.—John Roan's new seed plant, three miles north of here, just completed last November, was destroyed by fire Mar. 14. Cause was an oil burner. Destroyed with the building were 4,200 bus. of hybrid seed corn. Insurance partially covered loss.

Shenandoah, Ia.—DeKalb Agricultural Ass'n of DeKalb, Ill., has closed contracts for purchase of six acres of ground from Frank and Harold Welch, on which it will build a hybrid seed corn drying and processing plant. Similar plants are planned for Storm Lake, Humboldt, and Grinnell, Ia.

Yakima, Wash.—A new crop for the Yakima valley, which is expected to be started this year, is the growing of paprika peppers. Experts advise that climatic conditions here favor such production and need is urgent, since the trade with European sections has been cut off.—F. K. H.

Sacramento, Cal.—AB 1628, by Desmond, et al., duplicates SB 791, by Jespersen, et al., and carries a number of amendments to meet opposition from the agricultural commissioners. This is the uniform seed law proposed by the California Seed Council to bring California's seed law in line with the federal seed law.

Muscataine, Ia.—Austin Hoopes of the J. E. Hoopes Co. swallowed a guinea hen bone at the Western Seedsmen's Ass'n convention in Omaha, and thereafter spent 11 days at an Iowa City hospital without food or water. Dr. Lerle, throat specialist, finally succeeded in removing the bone. Mr. Hoopes is back on the job again.

Decatur, Ill., Mar. 29.—Oats seeding is well along in this central area, and under favorable soil conditions. The seed oats used are of the very best. Grass seedings will be extensive this year, as seed is cheap and most farmers have seed grown the past year. There is a marked increase in the sale of alfalfa seed.—Baldwin Elevator Co.

Topeka, Kan.—House Bill 464, introduced by Barry et al. in the Kansas legislature, relates to registration of wheat varieties. It is a companion bill to S. B. 337, which provides for publication by the Board of Agriculture of a list of established varieties' names, and such new variety shall not be sold until such variety is registered. Penalties are provided for violation. The bill was introduced by Senator Oberg.

Bloomington, Ill.—Funk Bros. Seed Co. is sending its friends a handy, souvenir note book in celebration of the 25th anniversary of its commercial sale of hybrid seed corn. It notes an order Mar. 29, 1916, from Samuel Ramsey, of Ohio, as the first documentary record of purchase of hybrid seed corn for commercial production. The booklet describes hybrid seed corn production methods, and gives valuable data on how to estimate yields of corn in the field and capacities of cribs, bins, and silos.

Spokane, Wash.—Geo. E. and F. H. McDonnell, of the McDonnell Seed Co., have brought suit against Carl Bauers to recover an alleged overpayment of \$14,242 and to void a contract made in July, 1940, for purchase of mustard seed. Bauers has made a counterclaim for \$37,251.53.—F. H.

Alyceclover, grown in Florida on a rapidly increasing acreage, and making good growth in other southern states, has been used for pasture, hay, and soil improvement. W. E. Stokes, of the Florida experiment station, tells about its cultural and fertilizer requirements, its hay and seed production, and its chemical composition in a recently released story. R. McKee, of the U.S.D.A.'s Bureau of Plant Industry, has prepared similar data.

Des Moines, Ia.—The Iowa House on Apr. 2 voted 62 to 25 for adoption of the Iowa seed bill which would tighten state control and bring the Iowa law in line with the federal law. A feature developing some resistance is the provision requiring farmers who sell seed for commercial production to have their seed analyzed for germination, kind, and secondary noxious weeds, and to have it cleaned from primary noxious weed seeds.

St. Paul, Minn.—C. P. Bull, director of Minnesota's weed and seed division, placed in effect Mar. 15 a new regulation interpreting use of the word "type" on the seed label as confession of uncertainty of "kind," unless other descriptive matter gives definite information covering variety. The buyer gets little or no useful information from the word "type," claims Mr. Bull, hence the sample is open to prosecution for improper labeling.

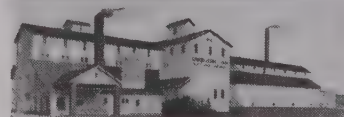
State Seed Laws Should Follow Common Pattern

Lack of uniformity in state seed laws and variations in definitions and provisions covering noxious weed seeds, origin, production of revenue, set up interstate trade barriers which infringe fundamental principles of free trade, according to a 24-page report on "State Seed Legislation in Its Relation to the Problem of Interstate Trade Barriers," issued by the U. S. D. A.

"The Federal Seed Act," it continues, "provides that noxious-weed seeds shall be in accordance with the laws of the state into which the seeds move, so it is essential; if a high degree of uniformity is to be obtained and interstate trade barriers are to be eliminated, that these laws follow the provisions of some common pattern other than the Federal Seed Act."

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Seed Warehouse Floor Collapses

Four employees were injured and one was killed when beams supporting the second floor of the United States Seed Co.'s four-story building at St. Louis, Mo., collapsed on Mar. 21, and let 50,000 lbs. of sacked seed drop thru to the basement.

The dead was Albert Ashwell, 57, whose head was crushed. The injured are: Jim Young, 34; Dan Eidman, 33; Floyd Allen, 35, and Chester Tannahill, 26. All were working at a bench on the first floor, when the second floor collapsed. An hour and 40 minutes of digging released the men.

Vanguard Oats Superior

Canadian Vanguard oats developed by Dr. C. H. Goulden of the University of Manitoba, have been showing adaptability in the United States.

Yields ranging from sixty-five to over one hundred bushels to the acre have been harvested on farms where native oats yield twenty to forty bus. to the acre. Oats for years have been a necessary evil to use as a nurse crop and to produce straw. This is positively an erroneous idea. Oats are a big money crop if the right kind is grown, but efforts are hopelessly lost if the farmer continues to use inbred and runout seed.

Vanguard outyielded other oats twenty to forty bushels per acre in 1939 and 1940. Three and one-half and four bushels of native oats are sown at a cost of \$1.50 per acre and yield only thirty to fifty bushels per acre in return. Vanguard costs \$3.50 per acre and yields fifty to 100 bushels.

The secret of the success of stem rust resistant oats is a deep root system 12 to 24 in. deep, which gets the moisture. It is a heavy stooler; very high in germination; has stiff straw and will stand up; thin husks and large kernels; medium in height and medium early; a perfect combining oats.

Advantages claimed for Vanguard oats are: Hybrid origin; rust resistant; stiff straw, stands up; excellent for combining; deep rooted, drought resistant; will not shatter; grows on all types of soil; white kernelled, brings higher price; superior in yield to any other oats; stools more than other oats; less seed, only one and one-half bushel per acre; gives legume crop a chance to grow.

Chicago, Ill.—The American Corn Millers Federation will hold its annual convention May 14 at the Chicago Towers, 505 No. Michigan Ave., announces Harry Hunter, sec'y.

Seed Movement in March

Receipts and shipments of seeds at the various markets during March, compared with March, 1940, in bus. except where otherwise indicated, were:

	FLAXSEED		Shipments	
	Receipts		1941	1940
Chicago	77,000	12,000	133,000	8,000
Duluth	159,377	2,216	125	1,258
Ft. William	51,481	11,438	64,396	4,221
Milwaukee	1,430	.....	.....	.....
Minneapolis	718,200	127,400	74,200	88,200
Superior	76,199	760	.....	.....
KAFIR AND MILO				
Ft. Worth	53,500	75,000	58,000	108,000
Hutchinson	57,000	10,500	.....	.....
Kansas City	204,400	22,400	76,800	43,200
Wichita	3,900	.....	2,600	.....
CLOVER				
Chicago, lbs.	781,000	1,099,000	481,000	810,000
Milwaukee, lbs.	176,000	234,225	1,474,026	1,112,855
TIMOTHY				
Chicago, lbs.	408,000	443,000	360,000	262,000
Milwaukee, lbs.	300,000	115,660	1,169,777	640,620
CANE SEED				
Ft. Worth	3,000	30,000	12,000	27,000
Kansas City	11,200	4,200	38,400	11,400
Hutchinson	9,000	1,500	.....	.....

Hybrid Seed Corn

By ROYSE P. MURPHY, instructor division of agronomy and plant genetics, University of Minnesota.

No longer does the farmer plant just a local variety of corn but instead he selects, often with great pride, a specific hybrid. If his selection is a wise one, he will point with satisfaction throughout the year to this field of corn. The advent of hybrid corn varieties has perhaps made a more revolutionary change in the farm program in a shorter time than any recently applied research discovery coming from state and federal experiment stations.

The estimates of the percentage of hybrid corn for the more important corn states is as follows: Iowa 88, Illinois 77, Indiana 66, Ohio 57, Minnesota 54, Wisconsin 51, Missouri 28, and Nebraska 23. No doubt these percentages will increase in 1941.

To many the term "hybrid" has varied meanings. The hybrid corn variety often means only a variety from a cross of some kind which usually gives good results and costs more for seed. In a general sense a hybrid may simply be termed as a progeny or first cross from unlike parents. Such a term is used for either plant or animal crosses. The value of a hybrid plant or animal may be great or small depending upon the parents. The carefully selected hybrid corn variety is of great value to the farmer, whereas the poorly adapted and selected hybrid may decrease the farm profit. All of the above are hybrids, but their development or composition is different.

The corn plant is cross pollinated; that is, the pollen from the tassel, the male, falls at random on the silks of the ear, the female. Thus, in an open pollinated field nearly every kernel of corn is a hybrid, since the pollen or male parent came from some other plant.

Selection for yield in such a field is seldom successful because one can select only for the characters of the female parent. The other parent or pollen parents is unknown.

In corn the parents are called inbred lines. These lines are developed by inbreeding or self pollination. For five or six years successively the pollen from the tassel is placed on the silks of the same plant. This is carried on by controlled hand pollination by the use of tassel bags and ear bags. In this way foreign pollen is excluded, and the silks of a given plant are fertilized with its own pollen. During this inbreeding process many undesirable plants are discarded. These include broken, lodged, diseased, dwarfed, barren, weak and generally undesirable types of plants. Only the most vigorous and desirable types are selected during this inbreeding process. Even the best of these inbred

lines cannot be used directly as a variety, because they are markedly reduced in vigor from the original corn. To restore this vigor it is necessary to cross the carefully selected inbred lines. This crossing produces a hybrid which exhibits the maximum vigor which is usually termed "hybrid vigor" or "heterosis."

SINGLE AND DOUBLE CROSSES.—And how are these inbred lines utilized? As stated above they are used in making crosses or hybrids. The more important crosses are known as single crosses and double crosses. A single cross is a cross between two inbred lines. A double cross is a cross between two single crosses. It is the most widely utilized type of hybrid in field corn. Single cross hybrids are often used in sweet corn and popcorn. Another type of hybrid, a three-way cross, is sometimes used in field corn and is a cross between a single cross and an inbred line. The value of any of the above types of hybrids is determined not by how it is made but by the value of the inbred line parents.

COMMERCIAL PRODUCTION.—Since the male flowers, the tassels, and the female flowers, the silks, are in different parts of the plant, corn is peculiarly adapted to the production of crossed seed under large scale operations in the field without hand manipulation. In such crossing fields the parental lines are inter-planted with one serving as the female or seed plant and one as the pollen or male parent. The female parent is detasseled so that all the seeds are crossed with pollen from the male parent. This is the source of the crossed or hybrid seed. The ears produced on the pollen parent are not hybrid but were pollinated by its own pollen so are not satisfactory for seed.

Crossing plots are usually planted with three or four rows of the seed or detasseled parent to one row of the male or pollen parent. Such crossing plots must be isolated some distance from other corn fields so that no foreign pollen will be carried in by the wind to make unwanted crosses. The detasseling process is done by hand over a two weeks period. One must be very careful to remove the tassels from the female parent before any of the pollen is shed as this would not produce hybrids.

DOUBLE CROSSES PRODUCED AT LESS COST.—One might ask why three-way and double crosses are usually used as commercial seed rather than single crosses. The primary reasons are that this seed can be produced with less cost, plants more easily

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and often gives better stands because of increased seedling vigor. The crossed seed from a single cross comes from the seed or female inbred line parent which usually yields from 50 to 75 per cent less than the hybrid. Also because of small seed size it is difficult to obtain a uniform planting, and the plants may be lacking in seedling vigor. Contrasted to this the crossed seed of a three-way or double cross comes from a single cross parent which gives a high yield, excellent seed type and seedling vigor if it has been carefully selected and developed.

Double crosses and three-way crosses are usually as uniform and yield as much or nearly as much as the best single crosses. These differences between single crosses and three-way and double crosses which may exist are not as important as would be the extra cost of the seed if single crosses were used commercially.

VALUE OF HYBRID CORN.—Controlled selection during the process of inbreeding makes it possible to select during the production of inbred line for the characters desired in the hybrid. The value of these lines is first determined from actual field trials of their crosses. Carefully selected hybrid corn varieties usually excel in plant type, yielding ability, resistance to lodging, per cent of good ears, stand and in disease resistance. Some plants of an open-pollinated variety may be as good as the plants of a hybrid, but they are not uniformly superior as in the hybrid. Consequently, the yield of adapted hybrids may be

expected to be from 10 to 25 per cent higher than that of adapted open-pollinated varieties.

Finally we come to the most important question. How may the individual select the best hybrid for his locality? As with other crops and even with livestock one selects only the tested seed or stock. Such a practice is just as wise and profitable when the farmer chooses his hybrid corn variety.

Hybrid corn varieties are developed by state and federal experiment stations and by commercial seed companies. The double cross seed of experiment station hybrids which is used as commercial corn is made by private seed producers and is purchased directly from them. All available hybrids are usually tested in carefully conducted state hybrid corn yield trials in the important corn growing states. The results of these trials are published in bulletins which are available to the public from the various experiment stations. In addition recommendations for any given locality may be obtained from experiment stations and from reputable seed producers.

Large acreages should never be planted to an untested hybrid. Small acreages for observation may be planted by the farmer for a year or two before he selects a hybrid or changes his hybrid variety for his entire corn acreage. In addition the seed should be carefully graded, possess a high germination per cent and be purchased from a reputable seed producer.

Midland Red Clover

By E. A. HOLLOWELL, U. S. Bureau of Plant Industry.

The new variety of red clover known as Midland is the result of 12 years of breeding, testing and increasing, thru co-operative efforts of the Ohio, Indiana, Illinois, Iowa, Idaho, Washington, Utah, Oregon, Colorado and Montana Agricultural Experiment Stations and Crop Improvement Ass'n's, the International Crop Improvement Ass'n and the Division of Forage Crops and Diseases, Bureau of Plant Industry, U. S. Department of Agriculture.

Midland red clover is a composite of three identified outstanding old strains, one from Illinois and two from Ohio. Equal proportions of seed from each state have been used in making the composite. As soon as the seed stocks of superior strains from Indiana and Iowa have been sufficiently increased to provide foundation seed, these strains will be included in the composite in equal proportions by states. Midland

red clover has appeared to be somewhat resistant to northern anthracnose, is winterhardy and has good growth characteristics.

ADAPTATION—From experiments conducted at various state agricultural experiment stations Midland red clover seems best adapted to the region comprising southern two thirds of Iowa; the northern half of Illinois, Indiana and Ohio; Pennsylvania except the southeastern part; the southern half of New York; and Massachusetts and Connecticut and Northern New Jersey. In other words, Midland is adapted to the middle section of the red clover belt.

It should not be used where southern anthracnose is a factor in red clover survival. Whether it will be satisfactory in more northerly sections remains to be proven. The results of state agricultural experiment stations' tests should be used in recommending its use. Certified or registered seed should be recommended to insure the farmer of the product. No authentic source of seed of Midland red clover, other than certified or registered seed is known.

Better Seeds, Fewer Weeds

By OLIVER C. LEE, Purdue Extension Botanist

In southern Indiana, Johnson grass has become so serious in river bottoms that much land has been taken out of cultivation. Field bindweed, another serious pest, has caused loan companies to refuse to take farms that are badly infested, as collateral on loans.

With these facts in mind many farmers are making a determined effort at weed control. One of the things that can be done now is to start the crop year by selecting seed that is free from weed seeds. The selection of clean seed is fundamental to weed control and only when this practice becomes general can we hope to cope with the weed problem.

Seed infested with such serious weed seeds as Canada thistle, quack grass, field bindweed, Johnson grass, horsenettle, dodder, and other weed seeds is largely responsible for the introduction and spread of these pests. When selecting seed to plant care should be taken to obtain seed that is absolutely free of these super pests. A farmer can ill afford to introduce such weeds thru crop seeds when they can be prevented by taking proper precaution. It is much easier to prevent their introduction than to eradicate them after they have become established in the field.

When purchasing seed it is advisable to select seed that has been tested and tagged. The tag

Imports of Seeds

Imports of agricultural seeds for February and for the eight months ending February, compared with like periods a year earlier, as reported by the U.S.D.A., have been as follows, in pounds:

	February		8 months ending Feb. 28, Feb. 29,	
	1941	1940	1941	1940
Alfalfa	279,700	819,900	772,600	2,499,900
Barley	21,600	.....	102,100	.....
Bean, Mung	140,800	2,900	1,521,000	2,900
Bentgrass	.....	.....	16,500	121,200
Bluegrass, ann'l	.....	.....	.....	4,100
Bluegrass, Can.	26,700	3,900	29,000	17,700
Bluegrass, rough	.....	36,600	500	767,100
Bluegrass, wood	.....	.....	.....	2,900
Brome, smooth	285,700	422,600	2,268,700	2,649,100
Chickpea	.....	.....	400	.....
Clover, alsike	.....	61,700	200	436,000
Clover, crimson	.....	.....	.....	5,051,200
Clover, red	.....	45,500	.....	82,600
Clover, subter'n	200	.....	17,700	900
Clover, suckling	9,000	.....	16,400	34,700
Clover, white	2,700	34,400	25,400	640,900
Corn	1,800	.....	1,800	.....
Cowpea	100	.....	500	.....
Dogtail, crested	1,100	.....	5,600	11,700
Fescue, Chew.	203,000	6,500	1,028,700	748,700
Fescue, meadow	.....	.....	14,800	24,900
Fescue, other	3,200	18,100	8,400	106,300
Grass, Bahia	.....	200	74,300	44,100
Grass, Bermuda	.....	.....	200	.....
Grass, Dallis	22,900	.....	135,600	80,700
Grass, Guinea	1,700	.....	32,600	57,800
Grass, molasses	300	4,200	39,600	46,200
Grass, orchard	.....	43,900	1,000	284,600
Grass, rescue	.....	.....	37,200	200
Grass, Rhodes	4,000	.....	57,200	88,400
Grass, velvet	.....	.....	2,100	7,400
Kudzu	.....	.....	1,600	5,000
Lupine	2,200	.....	496,500	.....
Medick, black	2,200	.....	90,300	107,200
Millet, Japanese	.....	141,800	.....	666,700
Mixtures, alfalfa, timothy	.....	.....	.....	15,900
Mixtures, alsike, timothy	.....	.....	.....	34,300
Mixtures, grass	.....	7,300	36,800	41,800
Oat	1,556,000	494,900	4,876,000	494,900
Pea, field	.....	.....	800	.....
Proso	.....	.....	11,700	.....
Rape, winter	.....	10,100	299,000	4,437,300
Rye	.....	.....	83,900	.....
Ryegrass, Italian	.....	1,500	900	292,200
Ryegrass, per'l	42,000	53,000	236,700	601,500
Sourclover	.....	.....	.....	35,000
Soybean	1,000	.....	1,000	.....
Sweetclover	.....	104,300	324,600	3,288,900
Timothy	.....	15,600	.....	15,900
Vetch, common	.....	.....	.....	249,000
Vetch, hairy	.....	7,600	27,000	2,619,000
Vetch, purple	.....	.....	.....	1,000
Wheat	40,400	92,700	174,600	92,700
Wheatgrass, crested	61,700	67,800	779,700	964,000
Wheatgrass, slender	8,500	28,300	30,800



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gives information regarding purity, germination, origin of the seed, as well as the number of each of the noxious weed seeds per pound of crop seed. Anyone interested in keeping his farm free from noxious weeds should be sure to read the back of the seed tag and if any of the most serious noxious weeds including those mentioned are included, the seed is expensive at any price.

When purchasing seed, quality should be considered first. Beware of so called "bargain" seed that may be offered at a figure far below the market price. It is safe to say that the seed business is so standardized that when seed is offered at bargain prices, nine chances out of ten there is something wrong with it. It is either low in germination or infested with weed seeds.

A Plan for Distribution of A.A.A. Legume Seed

The National Com'te on Seed Distribution set up by members of the seedsmen's ass'n's, in hopes of finding means whereby they might participate in distribution of legume seeds by the A.A.A. to southern farmers has proposed a plan for cooperation with the A.A.A.

In its preamble to the plan, the com'te states:

It is readily granted that AAA conceived and planned a master soil building program, which it has put into effect by providing the farmer credit to purchase legume seed and soil building materials. The soil building payments that had already been earned by the farmer served as security, making it possible under the AAA plan for the farmer to receive as Grants of Aid two-thirds of a total crop of about 65,000,000 pounds of winter legume seed, while only one-third was distributed for cash thru seedsmen. The largest previous total sales by seedsmen was in 1938 when we sold 47,000,000 pounds. Altho AAA had put over a marvelous soil building program that we completely approved, it had reduced the business of dealers by half. It had distributed as Grants of Aid as much cover crop legume seed as seedsmen had sold in their best year.

AAA promoted additional growing of winter peas and vetch in Oregon and of crimson clover in producing areas, by guaranteeing the producer a pegged price. The surplus crop was then purchased by the Commodity Credit Corp. and turned over to AAA to sell the farmer on credit as Grants of Aid, secured by the farmers' soil building payments. Seedsmen would not have sold what they did, if it had not been for a new requirement in the 1941 AAA program, providing for reducing the farmers subsidy check \$5 per acre for each acre of a required 21 to 30 per cent of his cultivated acres on which he failed to do soil building.

The plan whereby seedsmen may cooperate with the A.A.A. was proposed by Charles McNeil, com'te representative for the Mississippi Cooperatives. The com'te outlines it as follows:

Purposes and Scope of Plan. The purpose of this plan is (a) to provide farmers who are participating in the Agricultural Conservation Program of the Agricultural Adjustment Administration (hereinafter referred to as the AAA) with credit for purchase of seeds and seed inoculants for use in carrying out approved soil-building practices; (b) to insure the orderly marketing of the seeds included by the AAA in its conservation materials and services program; and (c) to encourage an increased domestic production of certain of these seeds by guaranteeing producers of same a minimum price thru means of a purchase program conducted by the Commodity Credit Corp. (hereinafter referred to as the CCC).

A particular kind of seed will be included in this plan in a given area only if the AAA determines that the furnishing of such seed is essential to the furtherance of the purposes of the Agricultural Conservation Program.

Seed Purchase Orders. In order to provide eligible farmers with credit for the purchase of seeds and seed inoculants, purchase orders will be issued them by their respective County AAA offices. The kind of seed ordered, the price to be paid per pound, and the total amount of the purchase will be stated on the face of the purchase order. The purchase order will be presented by the farmer to a local seed handler selected by him from among those handlers approved by the AAA. The seed handler will be paid by the AAA for all purchase orders properly filled by him, and the amounts so paid will be deducted from the payments earned by the respective farmers under the Agricultural Conservation Program.

Approved Seed Handlers. Under this plan of distribution the AAA will deal only with seed

handlers who agree in writing to conform to all established requirements, one of which will be that the handler must fill purchase orders to the extent of his available supply at the prices set by the AAA on all seeds included in the CCC purchase program. The AAA may remove the name of any handler from the approved list upon the handler's violation of any terms of the agreement. The AAA may require the bonding of any seed handler as a prerequisite to his participation in the plan.

Prices. Prices to be paid seed handlers by the AAA for seeds and seed inoculants furnished under this plan will be set by the AAA after consultation with the National Com'te on Seed Distribution.

Grades and Standards. All seeds distributed under this plan must meet grades and standards established by the AAA. Tests to determine compliance with grades and standards shall be performed only by seed laboratories acceptable by the AAA.

Provision for AAA Distribution. Seed handlers are to distribute seeds in all areas serviced by them. If localities exist that cannot be satisfactorily serviced by seed handlers, or if the AAA determines that satisfactory distribution is not being made in certain areas, the AAA may make other arrangements for such localities. In the latter event, the areas in question will be designated by it after consultation with the National Com'te on Seed Distribution or if the time element makes consultation impracticable, notice of the designation will be given to the com'te by the AAA as soon as possible after the designation.

Equitable Distribution of Available Supplies. The AAA and the National Com'te on Seed Distribution will cooperate in developing procedures to assure equitable distribution of available seed supplies among the consuming areas.

Purchases by the CCC. The farmers who grow certain designated seeds will be insured a stable price thru the purchase of such seed by the CCC at prices established by the Sec'y of Agriculture. No seeds will be purchased, however, unless (a) they have been tested, graded, and properly tagged, and (b) they meet the grades and standards established by the AAA for its Agricultural Conservation Program.

Wherever practicable, the seeds acquired by the CCC will be sold to established seed distributors for distribution in accordance with this plan.

Plan Contingent. The method of distribution outlined in this plan is contingent on the enactment of legislation by Congress authorizing purchases by the AAA without regard to the requirements of section 3709 of the Revised Statutes.

The plan has been presented to A.A.A. officials by members of the National Com'te on Seed Distribution, which urges full support from the trade that the proper legislation may be adopted in Congress to make it effective.

Flaxseed Prices and Shipping Costs

The explanation of this relative buoyancy of North American prices lies mainly in the increased difficulty and expense of importing flaxseed from the Argentine, combined with growing domestic requirements in both Canada and the United States. Since North America is still not entirely self-sufficient, the price of domestic supplies depends to an important degree upon the price at which Argentine flaxseed can be obtained.

The variable factor is not the price of the flaxseed itself, which is more or less stationary, but the cost of transportation. Last October, when prices in Canada and the United States were relatively low, the cost of moving flaxseed from Buenos Aires to New York was around \$8.50 per ton, equivalent to 22 U. S. cents per bushel.

Since that date, shipping space has become so scarce that the conference rate is now \$18 per ton, equivalent to 46 U. S. cents per bushel, and belligerent space has been offered recently as high as \$24 per ton, equivalent to 61 U. S. cents per bushel, write James Richardson & Sons, Ltd.

A cable from Berlin said German battleships and submarines operating in the North Atlantic sank 367,800 tons of enemy shipping between Mar. 16 and 23.

Study and practice good merchandising methods. Even in an elevator, goods must be displayed and kept free from dust.

SCALE TICKETS FOR GRAIN BUYERS

Scale and Credit Tickets—Form 51 Duplicating contains 100 leaves of white bond paper, each leaf bearing five tickets, machine perforated for easy removal, and 100 leaves of yellow post office paper, each leaf bearing five duplicates which remain in the book. Also 4 sheets of No. 1 carbon. Size of book 5½x13½ inches, check bound, well printed. Each leaf is one ticket wide and five tickets deep. Order 51 Duplicating 500 tickets. Price, \$1.00, plus postage. Weight, 1½ lbs.

Crop Delivery Record (Duplicating) — This multiple load scale ticket form has two tickets to a page so that grain from two farmers may be recorded without turning a leaf. Each ticket is ruled to record receipt of 23 loads including the date, hauler's name of each load, gross, tare and net, and has spaces at the bottom for recording the total bushels, the price, the check number, and the total amount paid in settlement. Especially convenient when a farmer sells his entire crop at one time, delivering all of it within a few days. Originals (120) of attractive goldenrod bond paper, 120 duplicates of manila, and 3 sheets of No. 1 carbon paper to the book, with heavy gray pressboard covers, cut flush. Spiral wire bound so that open book lays flat, or may be folded back upon itself in open position to facilitate entries. Size, 8½x10½ inches. Shipping weight, 2 lbs. Price, \$1.10 each, plus postage. Order Crop Delivery Record, Form 69 Spiral.

Improved Grain Tickets—Using Form 19GT as a scale book saves much time and labor as one writing with the use of carbon will give you a complete record and a ticket for the hauler. Each of the 125 original leaves bears four scale tickets, printed on white bond, machine perforated. Each ticket is 3 inches wide by 6½ long. The 25 duplicate leaves are printed on manila, but not perforated. Check bound at top of tickets with hinge top cover. 500 tickets in each book arranged horizontally. Each book is 7½x12 inches, supplied with 5 sheets of No. 1 carbon. Duplicating. Weight, 2½ lbs. Order 19GT Dup. Price \$1.20, plus postage.

Triplating is the same as 19GT Duplicating. In addition, sheets of strong white tissue are bound in between the original tickets and the duplicates so as to facilitate making three copies with one writing. Five sheets of dual-faced No. 1 carbon, 375 leaves. Weight, 3 lbs. Order 19GT Trip. Price \$1.65, plus postage.

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Feedstuffs

Yakima, Wash.—Molasses is expected to be used in the feeding of livestock for market in the Yakima valley, and this, too, is a home product.—F. K. H.

St. Paul, Minn.—Senate Bill 728, same as H. 799, introduced by Nelsen, adds canned and dry dog food to the list of concentrated commercial feeding stuffs coming under Minnesota's feed law.

Lubbock, Tex.—The Texas Feed Manufacturers Ass'n will hold its annual convention here May 8, the day preceding the joint meeting of the Texas and Panhandle grain and feed dealers ass'ns meetings.

A type of lameness appearing in pigs at about 150 lb. weight was prevented by adding a little manganese sulphate ($MnSO_4$) to the diet, in preliminary trials by R. C. Miller, T. B. Keith, M. A. McCarty and W. T. S. Thorp.

Decatur, Ill.—Peanut meal production remains unusually heavy, with an output of 18,560 tons in February, making a total since Oct. 1 of 78,283 tons, against only 10,460 tons for the same months last year.—Baldwin Elevator Co.

Chicago, Ill.—I. E. Harrod has been appointed district sales manager for Allied Mills, Inc., in the Eagle District, which includes most of Indiana, Illinois, Missouri and Kentucky, announces A. G. Philips, vice-president. He succeeds the late Paul G. Riley.

Cottonseed crushed in the 7-month period, Aug.-Feb., fell to 3,335,075 tons, compared with 3,485,370 in the same period a year ago, reports the U. S. Census Bureau. On hand by crushers at the close of the period were 843,511 tons of cottonseed, compared with 520,847 tons on Feb. 28, 1940.—P. J. P.

Ottawa, Ont.—Under a plan whereby the Dominion and provincial governments pay freight charges from the head of the lakes, Ontario has brought in 1,155 cars of feed grain, representing 2,101,000 bus., of Ontario's quota of 3,000,000 bus. Cost to the provincial government is estimated at \$100,000.

Albany, N. Y.—Senate bill 1820, introduced in the legislature by Graves on Mar. 19, would strike out the provision in the New York agriculture and markets law 128 which excepts poultry feeds consisting of grains, oyster shells or charcoal when these ingredients may be identified by the naked eye, from the definition of commercial feeding stuffs.

Nutritive Value of Pea-Pod Meal and Broad-Bean-Pod Meal

By H. E. WOODMAN and R. E. EVANS,
Jour. Agri. Sci., England.

Data are presented on the chemical composition of pea pod meal and broad bean pod meal prepared from the artificially dehydrated pods and the digestion coefficients of these two products obtained by digestion trials with sheep.

On a dry-matter basis the pea pod meal and bean pod meal, respectively, contained 10.82 and 11.17% digestible crude protein, 0.94 and 0.62% digestible ether extract, 46.12 and 44.81% digestible nitrogen-free extract, and 10.63 and 10.37% digestible crude fiber, with starch equivalents of 60.94 and 59.58. Both products are considered desirable constituents in the rations of sheep and cattle.

Southern Feed Control Officials Will Meet

The Southern Feed Control Officials Ass'n will hold its 3rd annual convention at Lexington, Ky., June 18-20. Sec'y E. H. Holeman, department of agriculture, Nashville, Tenn., lists among the subjects to be discussed:

Enforcement of Feed Control Laws; Chemical and Microscopical Analysis of Feeds; Interpretation of Printed Matter on Tags and Advertisements; Problems Met by Feed Control Officials in Neighboring States; What the Feed Industry Thinks of Us and Our Work; What the Federal Food and Drug Administration is Doing to Enforce Laws Governing Interstate Shipments of Feedstuffs; Fertilizer Control Problems, and Seed Law Enforcement.

Discussion will include methods of sampling, mixed feed standards, and wheat mill feed standards.

Meat Meal for Pigs

By P. C. ANGOVE, Department of Agriculture, South Australia.

In a pig feeding test 5% of digested meat refuse (36% protein) and 5, 7.5 and 10% of meat meal (66% protein) were fed as supplements to crushed barley plus a limited amount of green feed for fattening bacon pigs.

Average daily gains of 1.2, 1.28, 1.33 and 1.38 lb. per head were secured thru use of these respective supplements as compared with 1.09 lb. when no protein supplement was fed.

Minimum feed requirement per pound of gain occurred with the 5% of meat meal in the ration, followed in descending order by 7.5 and 10% of this product, 5% of meat refuse, and no supplement. The high value of these packing-house by-products as supplements to barley for bacon pig production is demonstrated clearly.

Shifts in Sales of Feed

By DR. P. B. CURTIS, before Purdue Nutrition School

One of the most striking changes in the kinds of feeds offered for sale has been the increase of ready mixed feeds over the straight by-product feeds.

In 1914, 75% of the total tonnage of commercial feed sold in Indiana was straight by-product feeds such as wheat bran, wheat middlings, cottonseed meal, tankage, etc., while 25% was proprietary or ready mixed feeds. In 1919 the percentages were 60 and 40 respectively. Today these percentages have been reversed and 60% of the total annual tonnage is ready mixed feeds while 40% is straight by-product feeds.

Twenty years ago poultry mash constituted only about 2% of the total annual tonnage while in recent years approximately one-third of the total tonnage has been poultry mash. Just recently the sale of hog and pig feeds has shown a marked increase from 3.3% in 1931 to 12.7% in 1939. The sale of protein concentrates as supplements to farm grains met with much success during the early years of the depression and there is still a large tonnage of such concentrates sold annually.

In 1907 when the feed law was enacted the sale of mineral feeds was negligible and vitamins were unheard of. In fact feed ingredients such as dried milk products, fish meal, fish oils, alfalfa products and soybean oil meal were not used to any extent in poultry mashes until after the close of the World War.

Soybean and Cottonseed Meals Compared

By C. W. McCAMPBELL, Kansas State College

Cottonseed meal (43% protein) and expeller process soybean meal (41% protein) were compared in a 218 day feeding test with fattening steer calves.

Steers on the cottonseed meal and soybean meal ration, respectively, consumed an average of 9.54 and 9.43 lbs. of corn, 1.5 and 1.5 lb. of protein supplement, and 9.55 and 9.53 lb. of sorgo silage daily with each receiving 1 lb. of prairie hay per head daily during the last 134 days of the trial. Average daily gains per head were 2.14 and 2.11 lb.

The lot fed cottonseed meal was appraised at 25c per hundredweight higher and returned \$2.12 greater returns over feed costs at the prevailing prices than the lot receiving soybean meal.

Protein and Vitamin Supplements for Pigs

By JOHN P. WILLMAN and F. B. MORRISON
Cornell University

Digester tankage and menhaden fish meal are about equal as protein supplements to a ration of yellow corn, linseed meal, ground field-cured alfalfa hay, mineral mixture and salt for growing and fattening fall-farrowed pigs fed in dry lot.

White fish meal was equal or superior to tankage and to menhaden fish meal. For pigs having access to pasture, protein superiority was as follows: White fish meal, menhaden fish meal and digester tankage.

The addition of 1 to 2½% of cereal yeast feed to excellent rations for growing or fattening pigs in dry lot did not influence either the rate of gain or the amount of feed required for a unit of gain. Similarly a cod-liver oil supplement did not improve the ration.

Georgia Feed Manufacturers Meet in Albany

The Georgia Feed Manufacturers Ass'n held its first annual convention at Albany, Ga., Mar. 20-21, during the 9th annual baby chick and egg show sponsored by the Poultry Science Club of the University of Georgia, Athens.

Election of officers placed Grant Card, of Atlanta, as president; L. C. Brown, Macon, vice president, and Joe Beall, Atlanta, treasurer. Tom Hill, Atlanta, was appointed sec'y.

New members elected to the board of directors are Grady Yancey, Atlanta; J. Frampton King, southeastern A-D-M Co. representative, and G. D. Arnold, Valdosta. Re-elected board members are R. E. Barinowski, Augusta; McH. Abel, Albany, and R. I. Zacharias, Columbus.

During a business meeting, the Georgia ass'n endorsed a resolution adopted by the Southern Mixed Feed Manufacturers Ass'n, suggesting use of a 10 lb. package to replace the 8½ lb. package which has been in use, and further moved that the new package size become effective Sept. 1, 1941.

Cooperation in enforcement of regulatory feed laws in the interest of the public and the honest feed manufacturer was the subject of another resolution. The ass'n's president was asked to notify the state regulatory division of the ass'n's willingness to assist in such enforcement.

The Albany Chamber of Commerce gave the members of the ass'n a chicken dinner on Mar. 21. The Chamber was co-sponsor of the chick and egg show which demonstrated the expansion of the poultry industry in the state, and commanded so much of the attention of the feed ass'n members. Joe Bell was toastmaster, and Dr. George King, of Baldwin Ag-

ricultural College, Tifton, Ga., was the featured speaker.

Nutritional authorities from Georgia's College of Agriculture addressed the joint meeting on poultry subjects.

Dried Whey Powder for Pigs

By A. R. CALLAGHAN and V. R. McDONALD

Feeding experiments compared the following four rations for bacon pigs: 1—Wheat and skim milk, equal parts, 289 lb.; 2—Wheat 373, meat meal 31.5; 3—Wheat 363, dried whey 34; and 4—Wheat 289, meat meal 24.5, dried whey 27 lb. Average daily gains per pig were 1.64, 1.21, 1.32, and 1.49 lb., and the amounts of dry matter consumed per lb. of gain were 2.51, 3.58, 3.23, and 2.95 lb.

It is concluded that the addition of dried whey to wheat-meat meal mixtures will materially improve the efficiency of the ration and go far in providing a satisfactory substitute for skim milk.

Problems in Soybean Processing

By EDWARD J. DIES, Pres., National Soybean Processors Ass'n at Wooster, Ohio, Conference.

In the fall of 1939 when the World War broke out processors suddenly found themselves in an unenviable position. The public speculative mind was fired, soybeans were a new product which, according to the headlines, would do everything from feeding man and beast, to growing hair and making silk hosiery soft, strong and pliable. So the public began buying soybeans, growers saw values sky-rocket, and the processors were trapped tightly between soaring bean prices, their pre-harvest season sales of meal and oil, and the current prices which left too big a reverse gap between raw material and finished products.

There was a price ceiling on protein concentrates and vegetable oils. There was no price ceiling on beans.

Some processors still grow cold when they think of the results.

A few scattered plants found it inadvisable to attempt processing this season. Others reduced facilities; several large plants have virtually withdrawn from the market, not by choice but by necessity. The soybeans being held back from market can hardly be consumed in the country or by speculative holders in the city. It will be unfortunate if the farmers withhold their beans until late in the season when there is smallest demand for our products.

To determine the facts I polled our members on utilization of meal and oil for the crop year 1938-39 and the following resulted:

SOYBEAN OIL MEAL (Tons)		per cent
Livestock feed	95.3	
Industrial	1.0	
Fertilizer	1.0	
Export	3.6	
TOTAL	100.0	
SOYBEAN OIL (in 1,000 lbs.)		per cent
Edible	86.1	
Industrial	13.8	
Unknown	1	
TOTAL	100.0	

Now I do not attempt to minimize the possible industrial uses of the future. The laboratories of our members are striving to develop such uses. Some feel it is essential to the future of the crop.

But right now, today, and up to the present

time industrial uses of soybean oil meal have meant next to nothing to the grower. And the immediate future of the soybean farmers will not be influenced by the consumption of soybean nuts, the long list of plastic gadgets, and Christmas tree baubles that so frequently catch the headlines.

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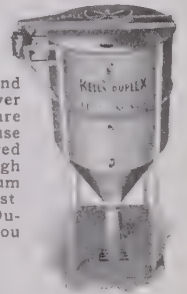
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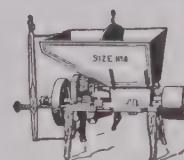
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Poultry Feeds and Feeding

Hatching intentions of turkey producers show a 3 per cent reduction under the crop of 1940.

An Italian biologist claims he can control the sex of chicks by putting the breeding hens on a special diet. Ninety eggs, laid by hens on a "female" diet, he says, hatched into 74 females and 16 males.

Zeeland, Mich.—Chris F. DeJonge, doing business as the American Ozone Co., has agreed with the Federal Trade Commission to cease misrepresenting ozone generating machines, or that the use of the machines in poultry houses contributes to the health and development of the birds.

Albany, N. Y.—Introduction 1467 in the Assembly by Rapp, and Introduction 1146 in the Senate by Hammond, is an act to grant an appropriation of \$95,000 to Cornell University for construction, equipment and maintenance of an experimental poultry plant for use of the New York State College of Agriculture. The bill is supported generally by the feed trade.

Washington, D. C.—The Bureau of the Census, as the results of the 1940 survey, shows that of the 6,096,799 farms, 5,150,055 farms had 337,949,145 chickens on hand on April 1, 1940, compared with 378,878,281 ten years earlier. Chicken production the year previous totaled 660,565,663, a reduction from the 673,092,052 raised ten years before. While only 389,352 farms raised turkeys in 1939, compared with 637,843 ten years earlier, the number of turkeys grown increased in the same period from 16,794,485 to 27,933,756. More than 12 million ducks were raised in 1939; 1,152,299 geese, and 948,755 guineas.

Nature of a New Growth Factor and Vitamin B₆ for Chicks

By D. M. HEGSTED, J. J. OLESON, C. A. ELVEHJEM and E. B. HART, University of Wisconsin, Madison.

Day-old chicks were given simplified diets consisting of dextrin, casein, and salt mixture with various supplements including vitamins A, D and K and all members of the vitamin B complex known to be required by the chick.

Some other growth factor was found to be lacking and was not supplied by factor U, chondroitin or arginine. Dried whole brain or kidney tissue, or wheat middlings proved the best source of the new factor, which could not be extracted from the animal tissues by water, alcohol, ether or acetone.

Chicks lacking the factor showed poor growth and developed a spastic paralysis. In birds which died during the time of deprivation the livers were yellow and the factors associated with yellow liver in other animals, choline, lipocic and riboflavin, were ineffective in preventing this condition in chicks.

Chicks which were deprived of vitamin B₆ failed to grow normally and showed general weakness but no specific deficiency symptoms.

Feedstuffs Movement in March

Receipts and shipments of feedstuffs at the various markets during March, compared with March, 1940, in tons, were:

	Receipts		Shipments	
	1941	1940	1941	1940
*Baltimore	2,753	3,214	.....	.....
†Boston	150	308	.....	.....
*Chicago	16,351	12,328	50,485	44,674
†Kansas City	8,225	2,700	26,250	23,525
*Milwaukee	60	230	12,460	15,560
*Minneapolis	.....	.....	31,075	35,025
*Peoria	16,340	9,780	17,820	15,520
*Milfeed.	.....	.....	.....	.....
†Bran and shorts.	.....	.....	.....	.....

Palm Kernel and Peanut Meals Prove Selves for Poultry Feed

By H. TEMPERTON and F. J. DUDLEY

In a trial with laying hens maintained in individual laying cages, the use of palm-kernel meal to partially or wholly replace wheat middlings, the use of peanut meal to replace both fish meal and dried skim milk, or the use of a combination of the palm-kernel and peanut meals to replace all of the fish meal and dried skim milk and part of the middlings in a basic laying ration did not significantly influence the rate of egg production, final body weight, or mortality of the hens.

Egg production was somewhat lower and feed consumption per unit of egg production considerably higher in the last-named case.

It seemed evident that these two feeds could be introduced into the rations of battery layers without risk or injury to the health of the birds or serious effect on production.

Protein Levels for Young Turkeys

By R. E. ROBERTS, Purdue University

Two starting rations for turkey poults, differing only in that one contained 10% of soybean oil meal and about 20% of total protein while the other contained 20% of soybean oil meal (10% soybean meal substituted for an equal amount of corn) and about 23% of total protein, were compared in two experiments, each involving pens of birds in confinement and on range.

The average consumption of feed per bird to 12 weeks of age was approximately 2 lb. greater on the higher protein feed, and the average total gain was also greater on this ration, an average of about 3 lb. of feed being required per pound of gain on each ration.

Since other experiments have indicated that chicks grow equally well on the two levels of protein feeding, it is suggested that poults require more protein during the starting period than is needed by chicks. The rate of mortality was not significantly influenced by the ration.

Experiments during the growing period (from 12 to 24 weeks) involved a comparison of mash feeding on a ration containing 20.8% protein v. mash and grain feeding, with birds having continuous free access to all feeds. The total feed consumption per bird was less on the mash and grain ration than on the all-mash diet, the difference ranging from 6 to 14% in the different trials. The rate of grain consumption gradually increased with increasing age, approximately one-half as much grain as mash being consumed over the entire period.

The final weight of both males and females on the all-mash rations was only slightly greater than the weight of those fed mash and grain,

with a consequent saving of from 0.4 to 0.8 lb. of feed per unit of gain in favor of the mash and grain system.

At 24 weeks the males exceeded the females in weight by slightly over 4 lb. on the average. The males required approximately 0.3 lb. less feed per pound of gain than the females. Birds which were heaviest at 12 weeks of age tended to be heavier at the end of the growing period.

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Vitamin B Complex in Feeding Poultry

By GERTRUDE BECKWITH before Southern California Poultry Service Club

Even tho we have a working knowledge of some of the important factors of the vitamin B complex we cannot review the subject too often. Information regarding these water-soluble products is changing so fast that it is difficult even for the people in technical work to avoid confusion and to keep information straight. We do not necessarily need to know all the scientific facts involving the chemistry of these factors, but we do need a practical working knowledge because we must know when fortification is necessary, why it is necessary, and how to fortify economically.

At first we considered only vitamin B₁, and because B was not a single vitamin, but a complex, we arrived at erroneous conclusions regarding its presence in feed stuffs. Actually there are only a few good sources of B₁ which is known as thiamin—namely, oats, peanuts, beans, yeast and peas, altho it is widely distributed in nature. Vitamin B₁ controls carbohydrate metabolism and when we are feeding high carbohydrate diets, our animals require more B₁ than on a lower carbohydrate intake. At the present time, we do not believe that there is any need of fortifying poultry feeds with additional B₁ (100 micrograms per 100 grams feed). However, certain combinations of feedstuffs, or rather, certain constituents, increase the vitamin requirements beyond normal.

Riboflavin, which most of us still call vitamin G, was the first factor to be separated from vitamin B₁. It is not as plentiful in nature as thiamin, or B₁, and most of our good vitamin G carriers are relatively high priced. Since there is close relationship between the amount of vitamin G fed and the growth of the bird, it is false economy to feed rations which do not contain an adequate amount. The hatchability record on one large farm dropped to 20% at the very peak of the season, due to false economy and inadequate knowledge of the G requirements of breeders.

These losses were stopped within a few weeks because we were able to verify our visual diagnosis by rapid methods of determining the vitamin G content of the ingredients in feeds. The most practical method now employed was developed by Strong and Snell at Wisconsin, and is based on the simple

fact that certain species of lactic acid bacteria will not grow unless supplied with riboflavin when kept on a medium of glucose, sodium acetate, mineral salts, and the B-G complex complete in all factors except riboflavin. When supplements containing riboflavin are added the rate of growth of the bacteria can be measured by titration of the lactic acid produced. By running controls with known amounts of pure riboflavin and comparing these results with samples containing unknown amounts of riboflavin we can estimate with a fairly high degree of accuracy the per cent of riboflavin present in the samples.

The same method can be used for the determination of pantothenic acid, which was formerly known as the anti-dermatitis factor or filtrate factor. Liver products, yeasts, and molasses are considered the best sources of this material.

B₆, or pyridoxin, is another fraction of vitamin B which apparently is essential for normal growth rate and efficient feed utilization. It is believed that young birds have a rather high requirement of this factor.

Carbohydrate in the Rice Factor

By L. R. STOKSTAD, H. J. ALMQUIST, E. MENCHI, P. D. V. MANNING, R. E. ROGERS
University of California, Berkeley.

Evidence has been presented to show that the growth-stimulating effect of polished rice or cartilage could be duplicated by glycine and chondroitin, fed jointly. Each of these compounds was found necessary for the optimal growth of the chick.

Further evidence was obtained which showed that the active constituent of chondroitin is glucuronic acid. We have also found that a number of other substances are able to serve as the carbohydrate moiety of the "rice factor." These include certain vegetable gums, pentoses, and hexuronic and hexonic acids.

A number of substances were found capable

of serving as the carbohydrate component of the "rice factor" for chicks. These include gum arabic, sodium alginate, glucuronic and gluconic acids, galactonic lactone, arabinose, and xylose.



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Hay Movement in March

Receipts and shipments of hay at the various markets during March, compared with March, 1940, in tons, were:

	Receipts		Shipments	
	1941	1940	1941	1940
Boston	363	297	.....	.....
Chicago	2,345	2,114	326	691
Kansas City	1,836	1,888	324	704

Feed Prices

The following table shows the closing bid price each week for July futures of standard bran and gray shorts, cottonseed meal and spot No. 1 fine ground alfalfa meal, in dollars per ton, and No. 2 yellow corn and No. 2 yellow soybeans in cents per bushel:

Minneapolis Spot				Kansas City			
	Bran	Midds		Bran	Shorts		
Feb. 21.....	19.00	19.00		15.75	18.60		
Mar. 1.....	19.00	18.50		15.60	18.85		
Mar. 8.....	19.50	19.00		15.85	19.60		
Mar. 15.....	21.50	21.50		16.00	20.05		
Mar. 22.....	22.50	21.50		16.30	20.00		
Mar. 29.....	22.50	21.50		17.10	20.40		
Apr. 5.....	22.50	21.75		17.20	20.50		
St. Louis*				Chicago Memphis			
	Bran	Shorts		Soy-beans	Soy Meal		
Feb. 21.....	18.90	20.75		93	21.25		
Mar. 1.....	18.75	20.85		95	21.10		
Mar. 8.....	19.00	21.75		98%	22.50		
Mar. 15.....	19.10	22.00		103%	22.90		
Mar. 22.....	19.40	22.25		106%	23.00		
Mar. 29.....	20.15	22.65		112	24.00		
Apr. 5.....	20.35	22.50		117%	23.25		
Cottonseed Meal				Kansas City			
	Ft. Worth	Memphis		Alfalfa	Corn		
Feb. 21.....	32.00	23.15		21.50	62%		
Mar. 1.....	31.00	23.25		21.70	63%		
Mar. 8.....	31.00	24.05		21.70	65%		
Mar. 15.....	31.00	24.45		21.70	66%		
Mar. 22.....	31.00	24.75		21.20	67		
Mar. 29.....	31.00	25.50		20.70	71		
Apr. 5.....	31.00	25.40		20.70	69%		

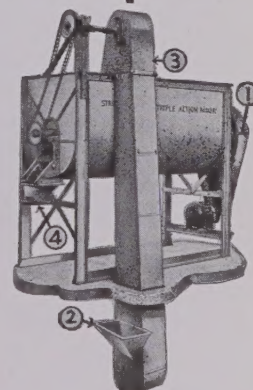
*St. Louis bran basis Chicago delivery; shorts St. Louis delivery.

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Problems in Hog Feeding

By MELVIN HAZALEUS, at Colorado State College Nutrition School.

Several common hog feeding problems could easily be eliminated if proper attention were paid to feed selection, balanced rations, and presence of needed vitamins.

Swine feeding is a bit different from feeding other classes of livestock. They are, in the first place, fed largely on grain. In the second place they mature much more rapidly, make more rapid gains than sheep, and return more pounds of gain for feed consumed than any other class of livestock. In all too many instances swine have suffered from a lack of inadequate rations due to the fact that they have been fed according to other livestock feeding rules.

ALFALFA MEAL.—Too little importance has been placed upon pasture for hogs and good bright legume hay, preferably alfalfa. Many of our experiment stations have conducted tests showing that the addition of 5% alfalfa meal to the ration has reduced the feed cost, increased gains and hence lowered production cost, an important factor when profits are considered. When hogs are on pasture, the hay need not be fed as they will receive their needed vitamins and calcium from the grass.

Alfalfa hay has been used as a satisfactory substitute for concentrated proteins for mature, open sows and can form a large part of the protein concentrate in most hog rations. It is a cheap source of protein and one that is easily available.

THE PROTEIN REQUIREMENTS for swine vary according to age. Small growing pigs need a comparatively narrow nutritive ratio of 1.1 to 5. This is suitable for pigs up to around 50 to 75 pounds. Old pigs need less protein and less need be fed. As barrows and gilts approach desirable market weights the protein requirement decreases. Bred gilts need an ample supply of protein in their ration to provide for their own growing needs and for the proper nourishment of the growing fetus. Mature sows, since they have made their growth, do not need as much protein as gilts.

The quality, not the quantity, determine the usefulness of proteins for hogs. In brief, those proteins of animal sources such as tankage, meat and meal scraps, skim milk, fish meal, and the dried milk products are best suited for swine feeding purposes. Those proteins or oil sources such as linseed meal, cottonseed meal, and soybean meal have been used with excellent results when combined with proteins of an animal source. This combination cheapens the protein supplement which usually is the most expensive part of our ration. A common combination of protein supplement has been the Trinity mixture composed of one-half tankage, one-fourth alfalfa meal, and one-fourth either linseed meal, cottonseed meal, and soybean meal.

A protein mixture used in an experiment at Purdue University has given good results thru the last two years. It is composed of:

- 20% meat and bone meal
- 20% menhaden fish meal
- 30% soybeans
- 10% cottonseed meal
- 10% linseed meal
- 10% alfalfa leaf meal

This was used when the hogs were fed in a dry lot with yellow corn being the main source of energy. When the hogs were on pasture, ten per cent soybean meal was added in place of the alfalfa leaf meal. This is a way in which a maximum amount of proteins of an oil source could be used in a swine feeding ration.

From our experience in making surveys of students from farms where hogs were kept, the problem of proper protein balanced rations was one of prime importance, and many have failed to realize that lowered feed costs could be had if proteins were purchased.

THE MINERALS most apt to be lacking in a swine production ration are calcium and phosphorus, with calcium more apt to be lacking than phosphorus. If swine are fed proteins of animal origin, the feeding of minerals in some experiments has been of little value. To be on the safe side, however, a mineral mixture consisting of equal parts of steamed bone meal, calcium, and salt has often been recommended as an economical feeding practice.

The vitamins lacking in swine rations are vitamins A and D. When hogs are on good green pasture, the vitamin problem is not present. In our dry feed lots and where pasture is not available the feeding of yellow corn and green high quality alfalfa meal or hay is a recommended practice.

We are often asked concerning the feeding value of grain sorghums when compared with corn. There was in Colorado and adjoining states a one million acre increase in grain sor-

ghum acreage. Grain sorghums are highly adapted to the feeding of hogs, and it has been shown that hogs will make economical usage of sorghums in all phases of the ration. As a general statement grain sorghums have been worth 90 to 95% of the value of corn with some experiments showing them the equal of corn. If the sorghums are to be hand fed, they should be ground coarsely for hogs; and when the sorghums are fed in a dry lot, five per cent of alfalfa meal should be added to the ration along with the legume protein supplement to make up for any vitamins needed.

A general statement concerning the feeding of yeasts and yeast products and fermented feeds to hogs might be in order. In general yeast feeding has not been of value. In some experiments it increased feed costs, and in a majority of experiments has increased the cost of production.

In closing one might say that if proper attention were paid to the correct nutritive ratio



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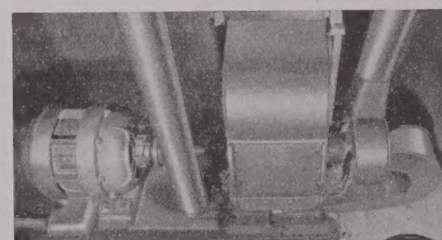
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GRAIN & FEED JOURNALS Consolidated

for growing pigs and young gilts, swine production would certainly be more profitable on most Colorado farms.

Soybean Meal for Lambs

By T. B. KEITH, R. C. MILLER and
W. L. HENNING, Pennsylvania
Experiment Station

Using red clover or mixed timothy-clover hays, corn and soybean meal as basic feedstuffs, the authors conducted six experiments involving 66 pairs of lambs to determine the optimum of soybean meal for feeding growing lambs.

In three experiments in which the ratio of concentrate to hay was not controlled but averaged 1:1.3, a supplement of 5% soybean meal increased the rate and efficiency of gain over that on corn alone when red clover hay was fed, but with mixed timothy-clover hay neither 5 nor 10% soybean meal in the ration gave significantly better results than corn alone. In the three later experiments lambs received concentrates and red clover hay in the definite ratios of 3:2, 1:1, and 2:3 respectively, with 35% and 10% soybean meal being fed at each concentrate-to-hay ratio.

All lambs receiving 35 parts soybean oil meal and 64 parts corn gained 15% more rapidly and required 13% less feed per unit of gain than those receiving 10 parts soybean oil meal and 89 parts corn. All lambs fed at the 3:2 concentrate-to-hay ratio required 19% and 74% less feed per unit of gain than those fed at 1:1 and 2:3 ratios, respectively.

The ration composed of soybean meal and corn (35:64) and fed at the concentrate-to-hay ratio of 3:2 (total ration, 17% protein) promoted the most economical gains in lambs regardless of feed prices. Those receiving the above concentrate mixture and red clover hay made the most economical gains regardless of the concentrate-to-hay ratio.

Packing-House Check on Steer Feeding Experiment

By I. WATSON, Colorado Experiment Station

Results of a feeding test comparing cottonseed meal, soybean meal, tankage, and a mixture of these three concentrates in equal parts as supplements to ground corn, rolled barley, wet beet pulp, and alfalfa hay indicated that 0.5 lb. per head daily of the mixture was slightly more efficient than 1 lb. of either cottonseed meal or soybean meal on the basis of dressing percentage and slightly better than the soybean meal on the basis of carcass grading.

Increasing the rate of feeding the mixed supplement was not profitable. Tankage feeding proved less desirable than any of the other supplements.

The addition of potassium iodide (129 mg. per head daily) to the cottonseed meal ration decreased the efficiency of gain, indicating that if an iodine supplement is needed this level is too high.

California Impositions on Fisheries

The California fishing industry is in for some heavy weather with a long series of legislative bills directed to further curtailment and restriction under authority of the conservation minded Fish & Game Commission. Most of the bills, tho not all of them, are vigorously opposed by the California Hay, Grain & Feed Dealers Ass'n, whose members depend upon the fisheries for fish meal and vitamin bearing fish oils.

Ass'n officials have expressed opposition to ACA 9, by Burns, which would divide monies collected which are now devoted entirely to enforcement of the fish and game laws, and research work; AB 29, by Thomas, which would

start the season for fishing on Oct. 1, and extend closing to Apr. 15; AB 477, by Andreas, and its companion bill, AB 478, which would provide license restrictions, including revocation of license if operations depleted specie, or wasted fish; AB 1068, by Call and Burns, which would force packers to pack 18 cases, instead of the 13½ cases now required from every ton of raw fish taken; AB 1775, by Lyon and Evans, which would regulate the fishing season by moons instead of by fixed seasons, and AB 2198, by Lowry, Call and Burkhalter, which would force fisheries to install \$100,000 evaporating plants to handle "stickwater," which is the equivalent, pound for pound of the raw fish taken.

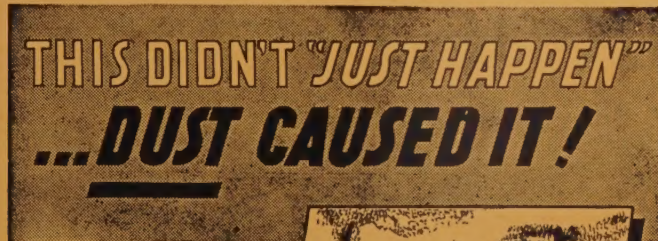
Distillery Slop for Hogs

Very slow gains resulted from feeding distillery slop (in any form) alone, and such feeding practice resulted in soft or oily carcasses, according to an experiment reported by E. J. Wilford of the Kentucky agricultural experiment station. The experiment involved three trials to determine the values of thin, settled, whole, and evaporated distillery slops when fed with and without supplements to fattening pigs.

Supplementing distillery slop with corn at a rate not less than 1 bu. of corn to 50 gal. of slop materially improved carcass quality. Faster and more economical gains were made when both corn and tankage were fed with the slop.

Thin distillery slop could be used best by allowing it to settle for several hours and then discarding about one-third of the volume represented by the top liquid.

Thin slop, settled slop, and whole slop were worth about 0.5, 0.75 and 1c per gallon, respectively, when fed with corn at 60c per bushel and tankage at \$65 per ton in the proportions recommended.



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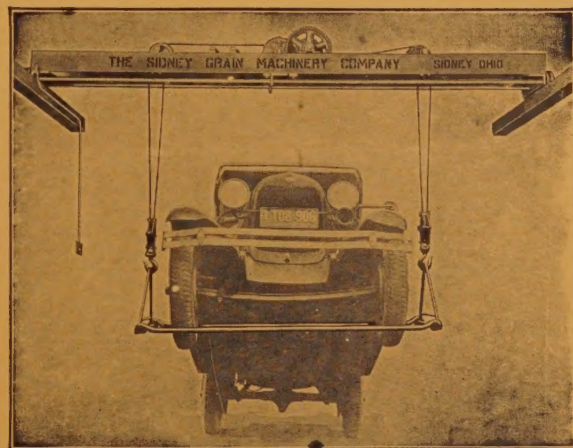
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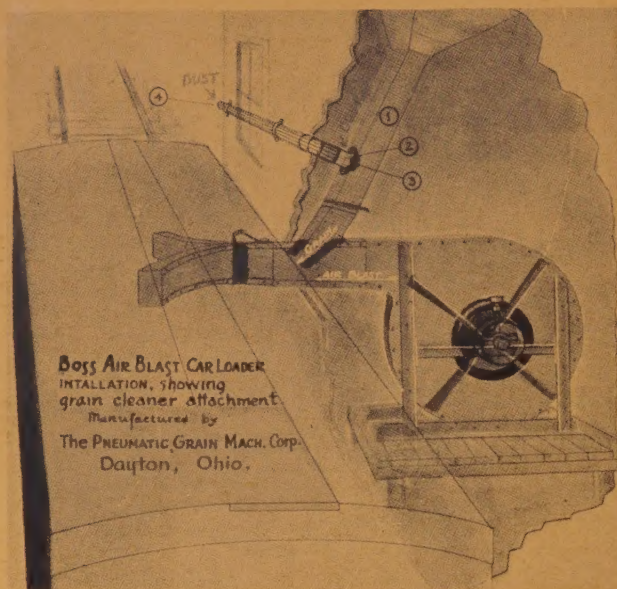
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